BART Seismic Retrofit Project

Berkeley Hills Tunnel to the Montgomery Street Station

ENVIRONMENTAL ASSESSMENT

Response to Comments

U.S. Department of Transportation
Federal Highway Administration

and the

State of California Department of Transportation

In cooperation with the

San Francisco Bay Area Rapid Transit District

February 2006

D

JUN 0 2 2006 U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CALIFORNIA DIVISION
650 Capitol Mall, Suite 4-100
Sacramento, CA. 95814

March 10, 2006

IN REPLY REFER TO
HDA-CA
BART Seismic Retrofit Project – Phase I
Berkley Hills Tunnel to Montgomery Street Station
File #: 04-ALA-BART
San Francisco and Alameda Counties
Document #: P54081

Mr. Bijan Sartipi, District Director
California Department of Transportation
District 4
P. O. Box 23660
Oakland, CA 94623-0660

Attention: Mr. Muhaned Aljabiry, Chief, Office of Local Assistance

Dear Mr. Sartipi:

SUBJECT: Finding of No Significant Impact (FONSI) – BART Seismic Retrofit Project

We have completed our review of the February 2006, Environmental Assessment – Response to Comments document, along with all the comments and their responses to the August 2005, Environmental Assessment and to the public involvement meetings for the above referenced project. Both the Fish and Wildlife Service and the National Marine Fisheries Service have determined that the project is not likely to adversely affect, and the State Historic Preservation Officer has concurred in the project's Finding of No Adverse Affect. The (FONSI) for this project is now granted. Enclosed is the original FONSI signature page for your use.

If you have any questions, please contact Leland W. Dong, Project Development Engineer, at (916) 498-5860 or via e-mail to leland.dong@fhwa.dot.gov.

Sincerely,

/s/Leland W. Dong

For
Gene K. Fong
Division Administrator

Enclosure

c: E-mail (w/enclosure)
Jay Norvell
Dale Jones
JoAnn Cullom
Terry Abbott
Germaine Belanger
David Tedrick
Thomas Horton
Shirley Ng

FEDERAL HIGHWAY ADMINISRATION
FINDING OF NO SIGNIFACANT IMPACT (FONSI)
for the
San Francisco Bay Area Rapid Transit (BART)
Seismic Retrofit Project
Berkeley Hills Tunnel to Montgomery Street Station

The Federal Highway Administration (FHWA) has determined that the BART Seismic Retrofit Project will have no significant impact on the human environment. This FONSI is based on both the attached Environmental Assessment – Response to Comments dated February 2006 and the previously approved Environmental Assessment dated August 22, 2005, which have been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. These two documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.

The FHWA has cooperated with the BART, the local lead agency for the project and with the California Department of Transportation (Caltrans) and takes full responsibility for the accuracy, scope, and content of the attached EA and supporting technical studies.

3/9/2006
Date

Leland W. Dong, Project Development Engineer
Federal Highway Administration

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1.0 INTRODUCTION

1.1 NEPA PROCESS

Subsequent to release of the Notice of Intent to prepare an Environmental Assessment (EA) for the proposed Seismic Retrofit Project, Berkeley Hills Tunnel to the Montgomery Street Station, the Bay Area Rapid Transit District (BART) issued a Public Notice to solicit input from the public and interested agencies on the nature and extent of issues and impacts to be addressed in the EA. BART held three informational meetings: January 28, 2003 in Oakland; October 23, 2003 in Rockridge; and January 18, 2005 in San Francisco. During these meetings, BART presented project information including identification of agency roles, the purpose and need for the proposed action, development of project alternatives, project construction schedule, project funding, and a summary of possible environment impacts. The public was also provided the opportunity to submit comments on the scope of the proposed environmental analysis.

On August 28, 2005, BART released for public review an EA on the proposed Seismic Retrofit Project, Berkeley Hills Tunnel to the Montgomery Street Station. The 30-day public review and comment period on the EA began on August 28, 2005, and ended on September 27, 2005. BART, in cooperation with the California Department of Transportation (Caltrans) and the U.S. Department of Transportation, Federal Highway Administration (FHWA), held a public open forum hearing on the EA on September 14, 2005.

The NEPA process is guided by the National Environmental Policy Act and its implementing regulations, 23 CFR Part 771. Preparation of a revised EA and Responses to Comments pursuant to NEPA is regulated according to each federal Lead Agency's requirements. The Lead Agency on the proposed project is FHWA, with BART and Caltrans acting as co-Lead Agencies. FHWA's Technical Advisory (T6640.8A) guiding preparation of the revised EA states:

> Following the public availability period, the EA should be revised or an attachment provided, as appropriate, to (1) reflect changes in the proposed action or mitigation measures resulting from comments received on the EA or at the public hearing (if one is held) and any impacts of the changes, (2) include any necessary findings, agreements, or determination (e.g., wetlands, Section 106, Section 4(f)) required for the proposal, and (3) include a copy of pertinent comments received on the EA and appropriate responses to the comments.

This revised EA does not identify any substantial effects on the environment, and no new substantial effects on the environment were identified during the public review period. Therefore, BART will submit the record of public comments and responses, and request a Finding of No Significant Impact (FONSI) by FHWA, who is responsible for making the official "finding" that all proposed project effects will be less than substantial.

FHWA regulations require a Notice of Availability (NOA) be sent to any cooperating and jurisdictional federal, state, and local government agency, as well as to the State Clearinghouse and anyone providing comments on the EA. FHWA will take into consideration all public comments received when making a final determination to approve the proposed FONSI and EA. This action would conclude the environmental process pursuant to NEPA.

1.2 CONSULTATIONS

The NEPA process often occurs concurrently with other applicable Federal environmental processes, which are intended to protect a specific element of the environment. These include, but are not limited to, Section 4(f) (Protection of Publicly Owned Park, Recreation Area, Wildlife or Waterfowl Refuge or Land from Historic Sites), Section 106 (Protection of Cultural Resources and Historic Properties), Section 7 (Protection of Endangered Species), Presidential Executive Order 11990 (Protection of Wetlands), and Presidential Executive Order 11998 (Protection of Floodplains). It is generally expected that any applicable Federal environmental processes be completed prior to completion of the NEPA process to ensure compliance and to summarize the findings within the NEPA document. BART, Caltrans, and FHWA have conducted ongoing consultations with other applicable regulatory agencies throughout the preparation of the EA to ensure that a FONSI is warranted. The following consultations have been concluded prior to release of this revised EA.

BART has consulted with the National Oceanic and Atmospheric Administration (NOAA) Fisheries/National Marine Fisheries Service (NMFS) pursuant to the Federal Endangered Species Act (ESA) Section 7 (for impacts to marine mammals and fish) and pursuant to the Magnuson-Stevens Act (for impacts to Essential Fish Habitat [EFH]). Teleconferences were held in December 2004, January 2005, and October 2005, during which time NOAA indicated that additional construction schedule restrictions for dredging and pile-driving would be required to mitigate impacts to marine mammals and fish during certain seasons. BART has agreed to implement this measure to avoid impacts to listed salmonid species. NOAA concluded the Section 7 and EFH process by issuing a letter in February 2006 stating that BART's agreement to limit work to within the acceptable timeframe, as well as to implement all other identified mitigation measures in the EA, would ensure a Finding of No Adverse Effect.

Formal Section 106 consultation with SHPO was concluded on May 15, 2005, when SHPO provided FHWA a letter of concurrence finding that the project would have no adverse effects on historic (both archaeological and historic architectural) resources.

In addition, BART has reconvened consultations with affected permitting agencies and ferry operators using the San Francisco Ferry Plaza Platform to discuss the proposed retrofit of the San Francisco Transition Structure. BART met with the Port of San Francisco and Golden Gate Harbor, Bridge and Transportation District (Golden Gate District) on September 21, 2005, November 7, 2005, and November 29, 2005. BART also met with the Water Transit Authority (WTA) on November 16, 2005, and will meet with the San Francisco Bay Conservation District Committee's (BCDC) Engineering Review Board regarding proposed project design details.

1.3 EA ORGANIZATION

This revised EA for the proposed BART Seismic Retrofit Project (Earthquake Safety Program) extending from the Berkeley Hills Tunnel to the Montgomery Street Station contains information in response to issues raised during the public comment period. Combined with the August 2005 EA, this document identifying revisions as a result of the public comment period comprises the total environmental document pursuant to NEPA. The document's organization is explained below.

Following this Chapter 1.0, Introduction, Chapter 2.0, Revisions to the EA, contains text changes initiated by BART and those resulting from comments on the EA and errata to the EA.

Chapter 3.0, Responses to Written Comments on the EA, contains the specific, detailed responses to comment letters submitted by agencies and organizations. A copy of each comment letter received is included, and is identified by an alphabetical letter. Each specific comment in each letter is labeled with a number in the margin. It should be noted that no individual testified or submitted material at the public open forum hearing held on September 14, 2005.

Chapter 4.0, References, identifies the documents (printed references) and individuals (personal communications) consulted in preparing this revised EA.

Chapter 5.0, Acronyms, presents a list of the acronyms and abbreviations used in this revised EA.

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2.0 REVISIONS TO THE EA

The following corrections and changes are made to the EA and are incorporated as part of the revised EA. Revisions are based on additional BART-initiated design analysis, or in response to public comments on the EA. This information replaces and/or supplements the text provided in the EA.

2.1 PROJECT DESCRIPTION REVISIONS

BART conducted further design review of proposed retrofit activities, which resulted in deletion or refinement of several retrofit techniques analyzed in the EA, as described below. Revisions to the EA are referenced by the associated EA section.

2.1.1 Transbay Tube

Retrofit techniques proposed for the Transbay Tube (Tube) to minimize the potential effects of liquefaction include micropile anchorage and/or vibro-replacement; techniques to strengthen the Tube's seismic joint from structural failure include stitching the Tube and installing a tunnel liner sleeve (see EA section 2.2.1 for details). As a result of further BART design review, stitching the Tube has been determined to be ineffective at preventing longitudinal movement at the seismic joint, and will not be implemented.

The impacts associated with stitching the Tube, including to water quality (from turbidity and sedimentation), noise (from pile installation), and vessel transportation (interruption of ferry operations at the Platform due to the presence of up to 12 barges) are no longer applicable to the proposed project.

Figure 1, below, depicts the full of extent of barge work areas in plan view within the vicinity of the San Francisco Ferry Plaza Platform (Platform), and clarifies EA Figure 2-3 depicting proposed vibro-replacement activities at the San Francisco end of the Tube. As indicated in Figure 1, spud anchors would be used in water depths up to 50 feet in lieu of anchor wire rope to avoid interfering with ferry movement. Therefore, project construction activities associated with vibro-replacement will not interfere with ferry operations in the vicinity of the San Francisco Ferry Terminal.

2.1.2 San Francisco Transition Structure

Retrofit techniques proposed at the San Francisco Transition Structure are described in EA section 2.2.2. Based on further design review, BART has determined the following retrofit techniques to be technically infeasible and/or ineffective in stabilizing the San Francisco Transition Structure from sliding and rocking movements, as well as from the pressure of spreading soils:

- Piles and collar anchorage, including sacrificial walls; and
- Isolation Wall Retrofit Concept.

Therefore, these techniques will not be implemented, and associated impacts are no longer applicable to the proposed project.

The marine-based construction option (Construction Method 1) at the Platform, described on EA page 2-24, lines 6-19, has also been removed from consideration. Accordingly, the plaza-based construction method (Construction Method 2), in which construction equipment would be placed directly on top of the Platform, would be implemented. Details of the construction sequence associated with this method are described below, and are depicted in Figures 2 through 7.

To facilitate access to and use of the Platform for retrofits at the transition structure, construction would occur in up to six phases. This would allow portions of the Platform to remain publicly accessible throughout the duration of construction, and would allow portions of the Platform to be reconstructed immediately following completion of certain retrofit activities, and before the beginning of others. The total platform area is 108,000 sf, and the maximum area of the Platform to be removed and replaced is approximately 59,000 sf, (approximately 55 percent of the total Platform area). However, the maximum Platform area that would be restricted from physical public access during any of the construction phases would be 39,000 sf, which represents approximately 36 percent of the total platform area.

Public amenities and uses currently located within the construction footprint on the Platform would be protected in place or temporarily relocated consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 *et seq.*), as applicable, including the Gandhi statue, benches, decorative planters, portions of the Farmers Market parking areas (both construction staging and operational spaces), parking for nearby uses and the World Trade Club, and infrastructure associated with the Golden Gate Ferry Terminal (for details regarding the proposed temporary Golden Gate Ferry Terminal, please see the discussion under section 2.2.2, below). As stated in the EA on page 2-23, lines 16-19, any hardscape or landscape removed during construction on or near the San Francisco Transition Structure, including specifically at the Platform, would be replaced in-kind after project completion; this would ensure the same type of vegetation or tree is replaced at a 1:1 ratio. In addition, BART is coordinating with the affected tenants to ensure adequate relocation or protection of uses during construction, and replacement of facilities at project completion. Access to the existing entrance(s) to the World Trade Club located on top of the transition structure would remain operational during the six phases (numbered 0 to 5) of construction. Although vehicular access to the World Trade Club would not remain the same as under existing conditions (e.g., valet parking in front, delivery entrances, etc.), it is expected that patron access to the club and commercial deliveries to the restaurant would continue through the entrances identified on Figures 2 through 7 throughout project construction. The use of alternate entrances is not expected to result in a substantial impact on use at the club.

The proposed construction phasing for conducting retrofits at the San Francisco Transition Structure includes the following series of activities.[1] To maintain continual ferry operations, construction of the temporary Golden Gate Ferry Terminal and floating dock (proposed mitigation measure described under section 2.2.2, below) would be completed during Phase 0, and ferry operations relocated to the temporary terminal prior to the beginning of Phase 1 construction on the Platform. All temporary and permanent replacement structures (including Port of San Francisco and Golden Gate Ferry Terminal facilities) will be designed to provide the functional equivalent of the existing

1 The proposed construction phasing represents a reasonable scenario for purposes of impact analysis. The specific details of construction phasing may be revised based on project needs and subsequent discussions with the Port of San Francisco and other affected entities, so long as impacts are not materially increased.

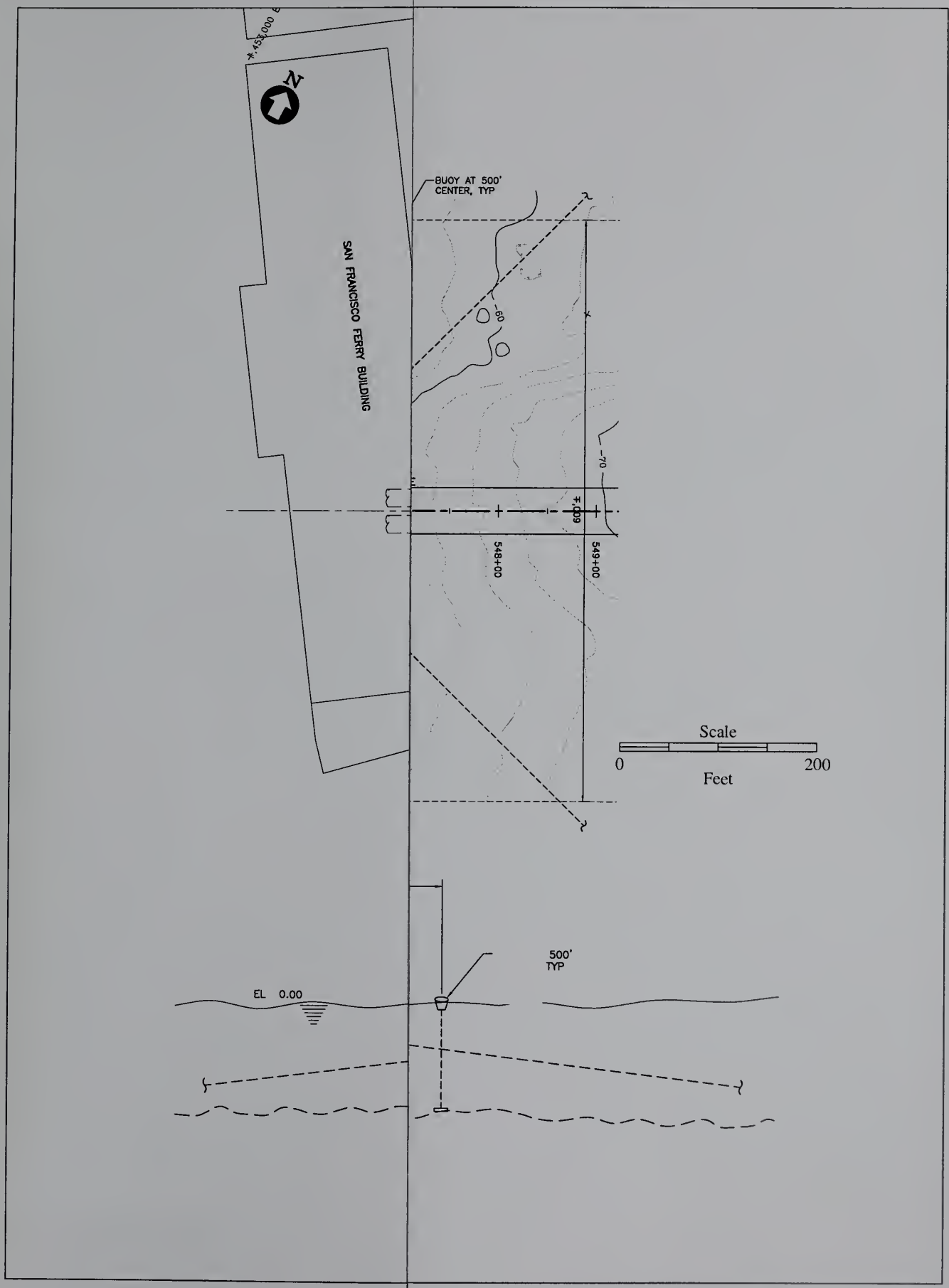
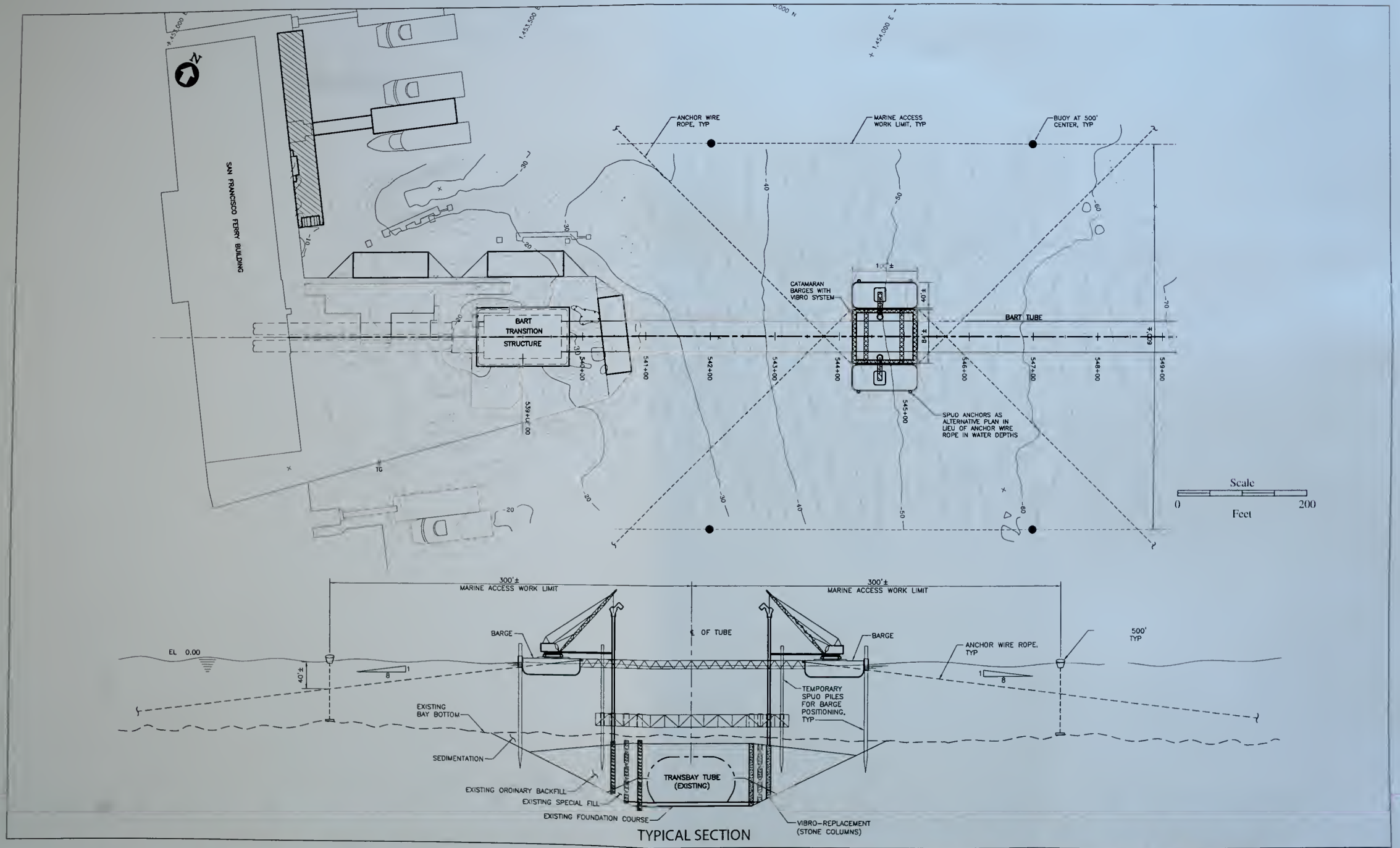


Figure 1. Barge Anchoring Layout and Profile for Vibro-Replacement at the San Francisco End



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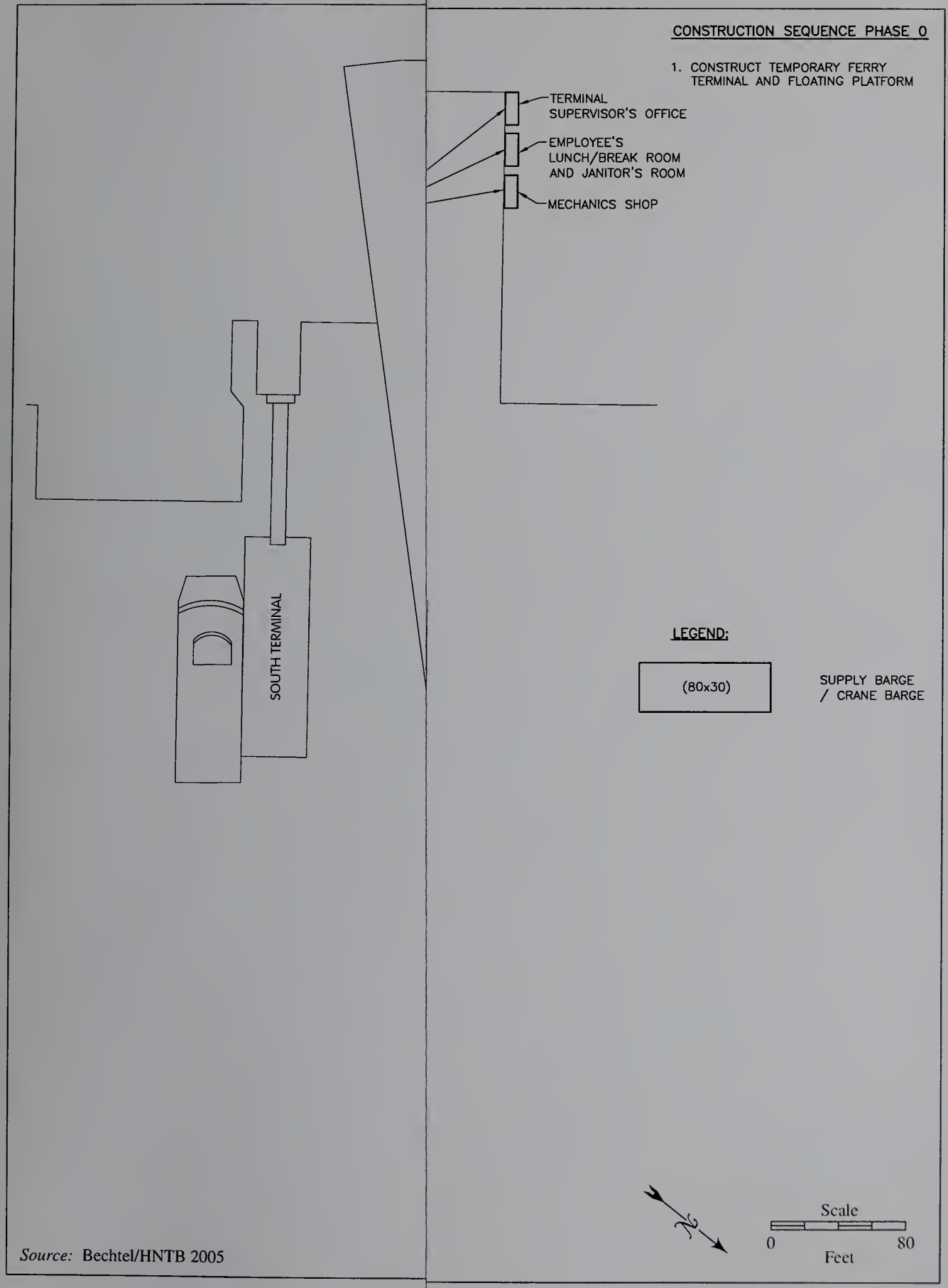

Source: Bechtel/HNTB 2005

Figure 2. San Francisco Transition Structure Construction Phase 0

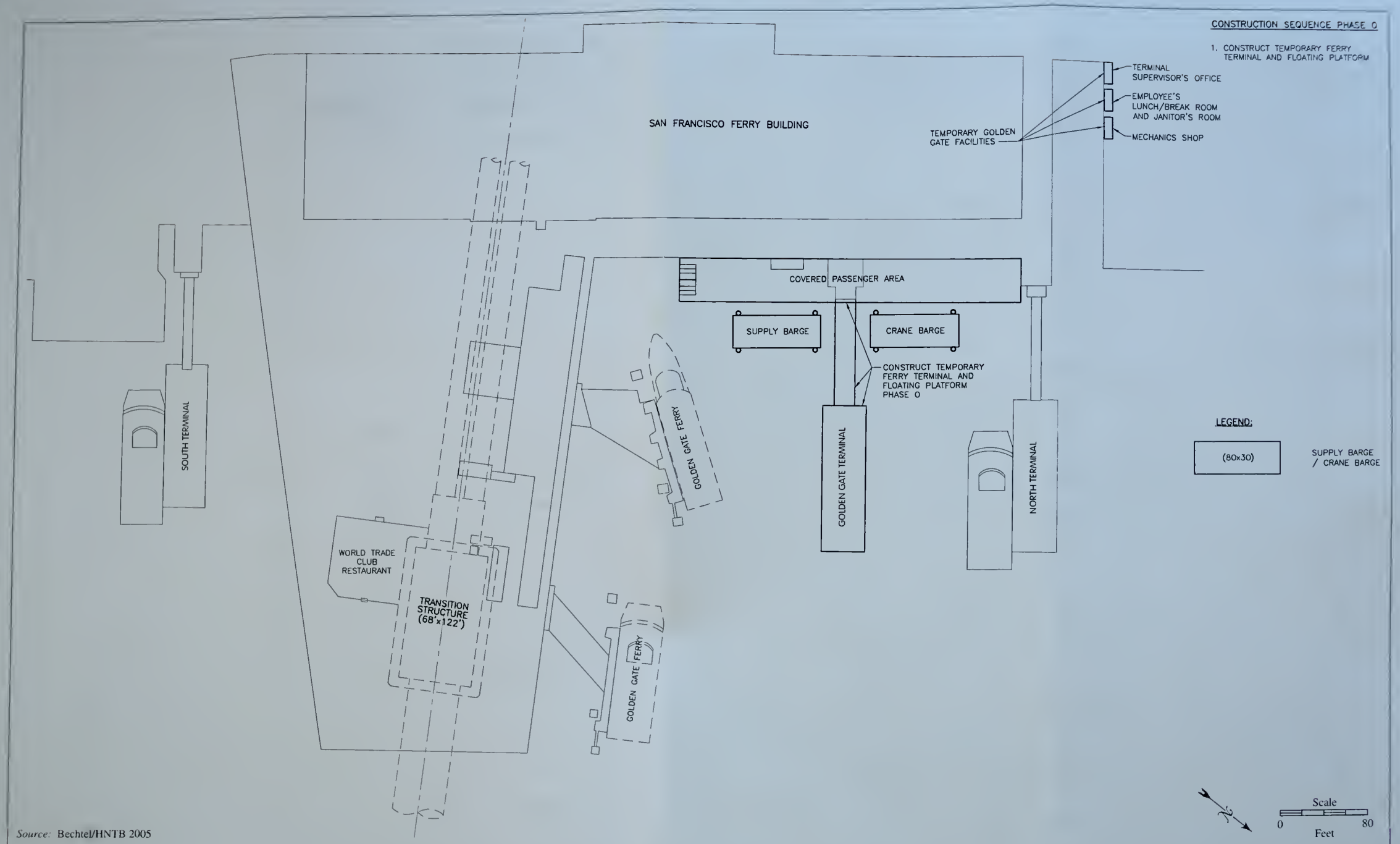

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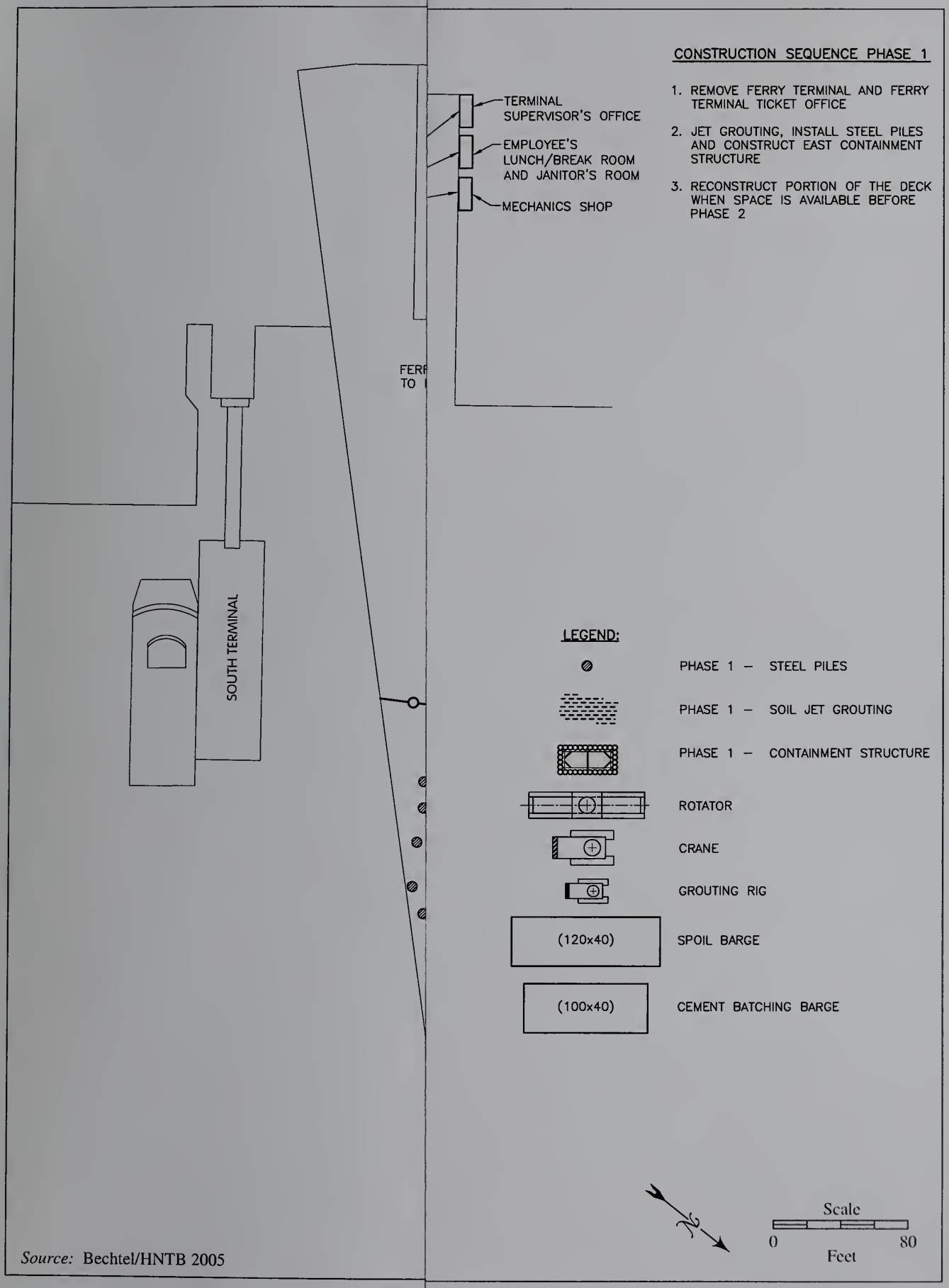
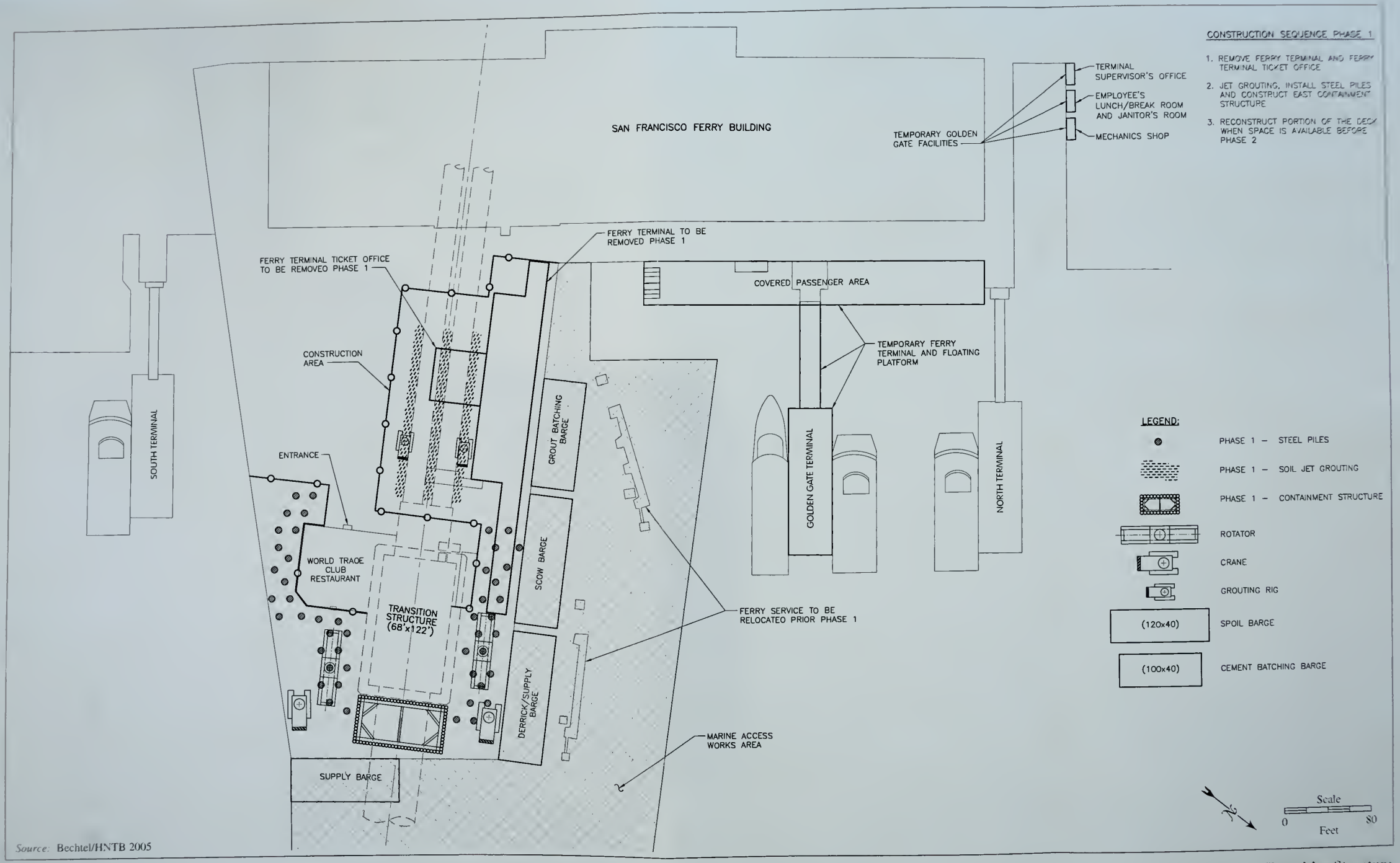
Figure 2. San Francisco Transition Structure Construction Phase 0



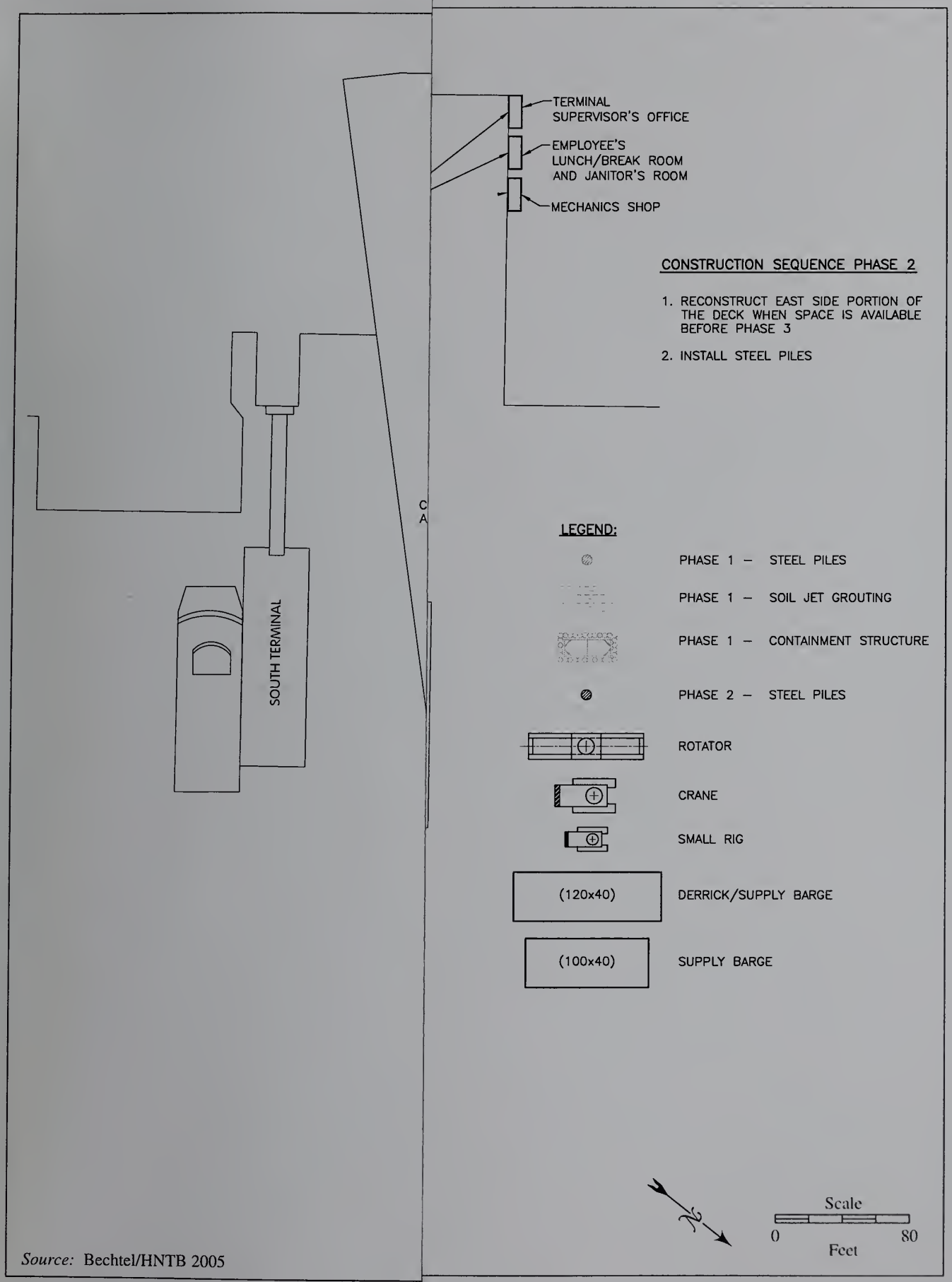
Source: Bechtel/HNTB 2005

Figure 3. San Francisco Transition Structure Construction Phase 1



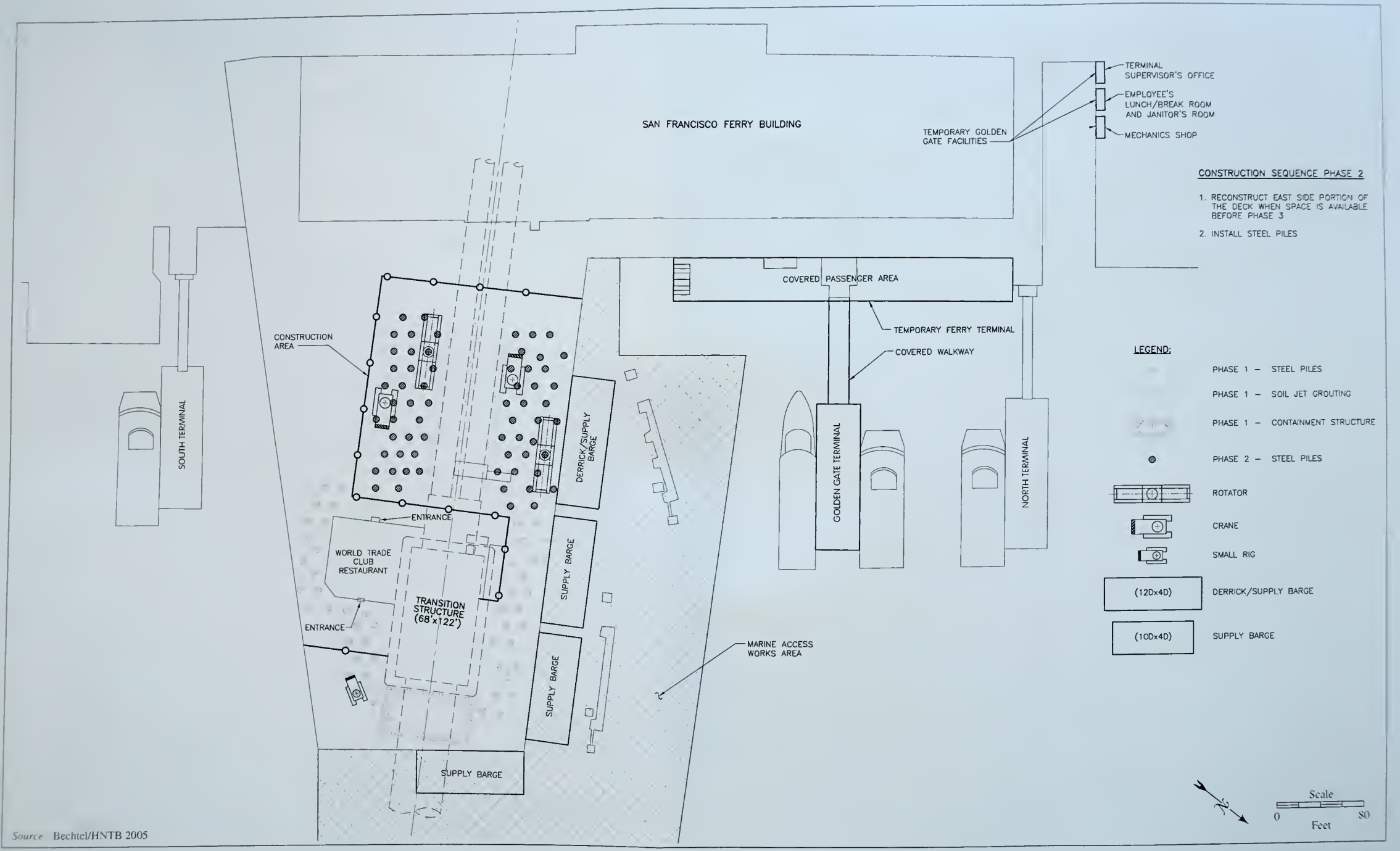
Source: Bechtel/HNTB 2005

Figure 3. San Francisco Transition Structure Construction Phase 1



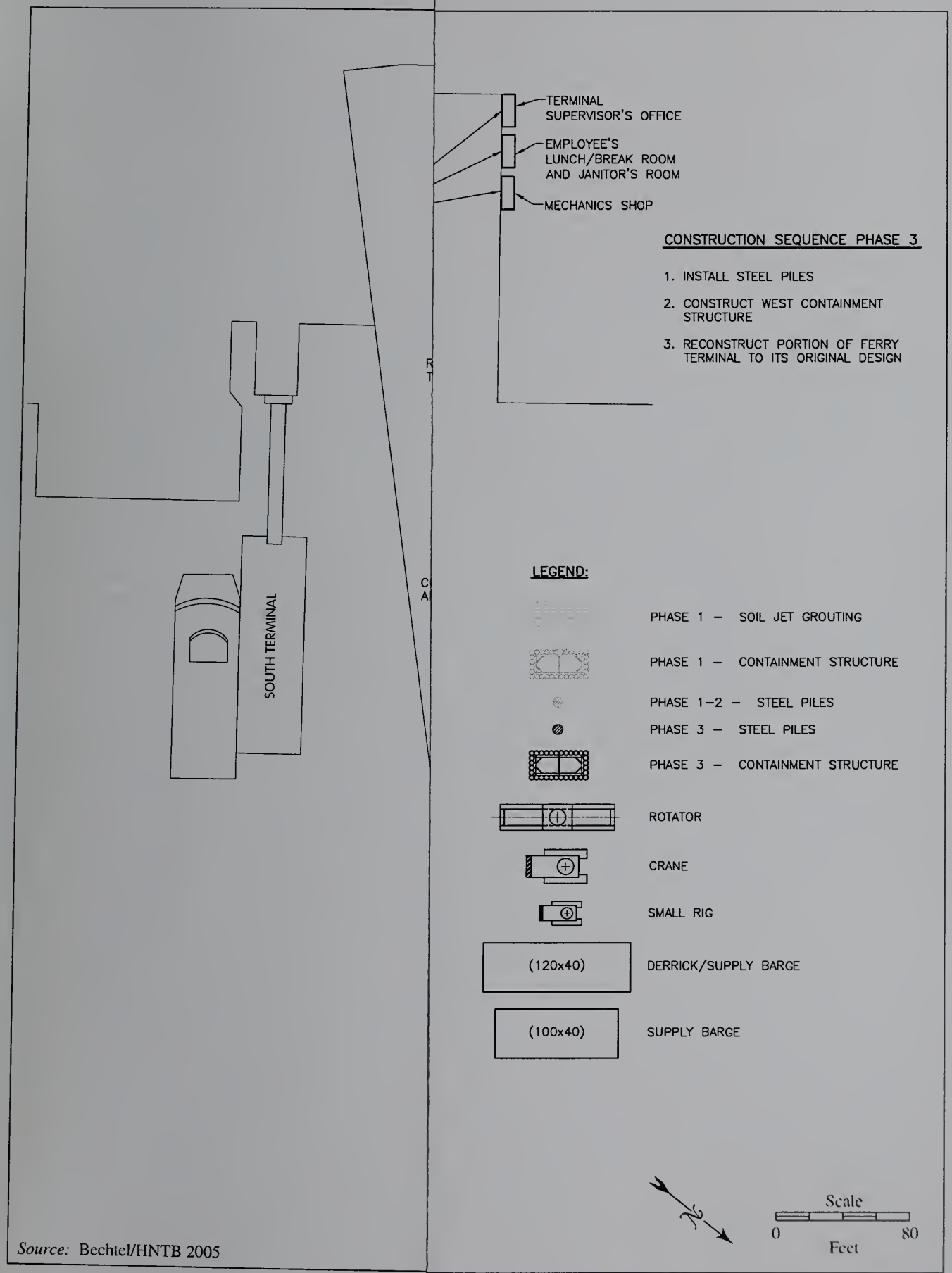
Source: Bechtel/HNTB 2005

Figure 4. San Francisco Transition Structure Construction Phase 2



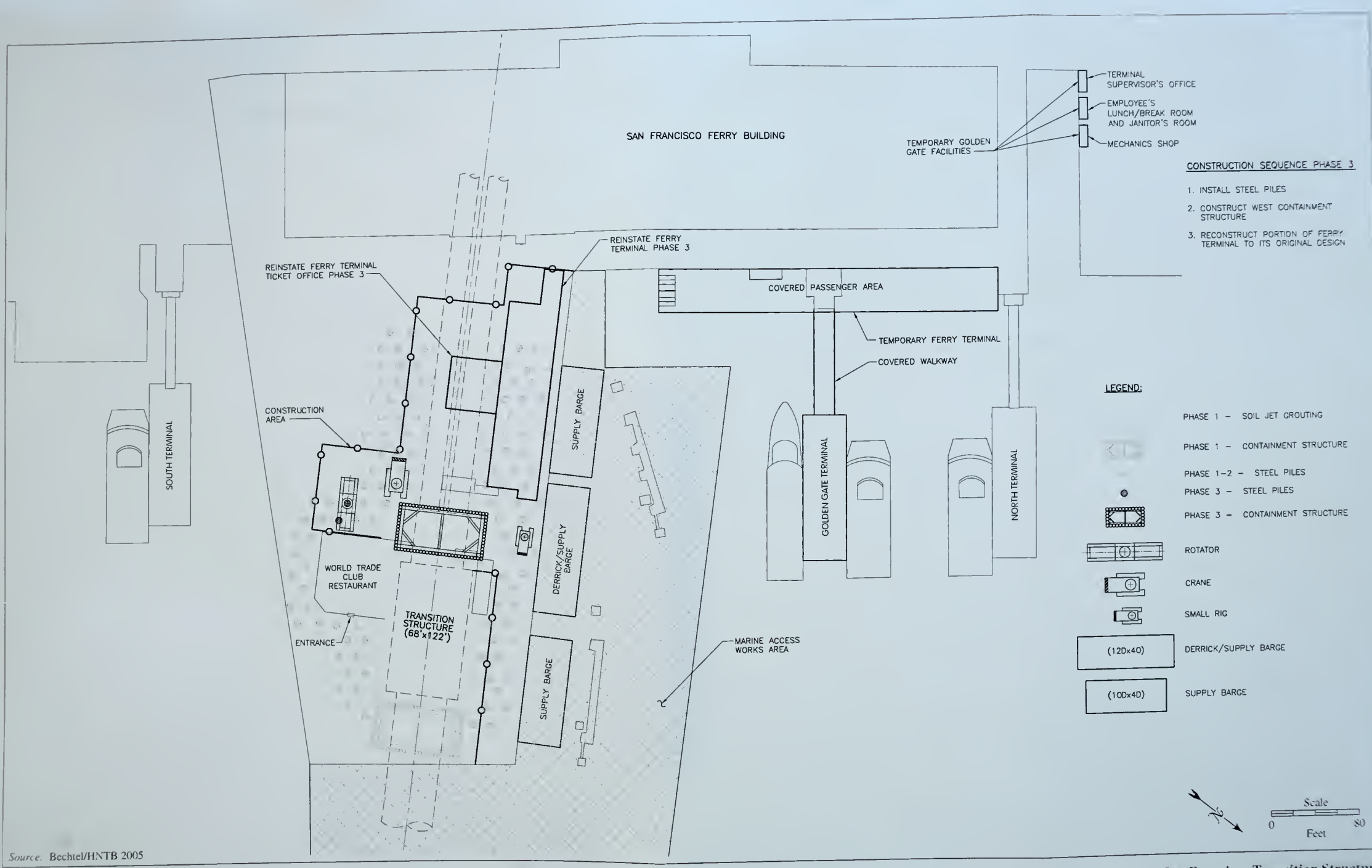
Source Bechtel/HNTB 2005

Figure 4. San Francisco Transition Structure Construction Phase 2



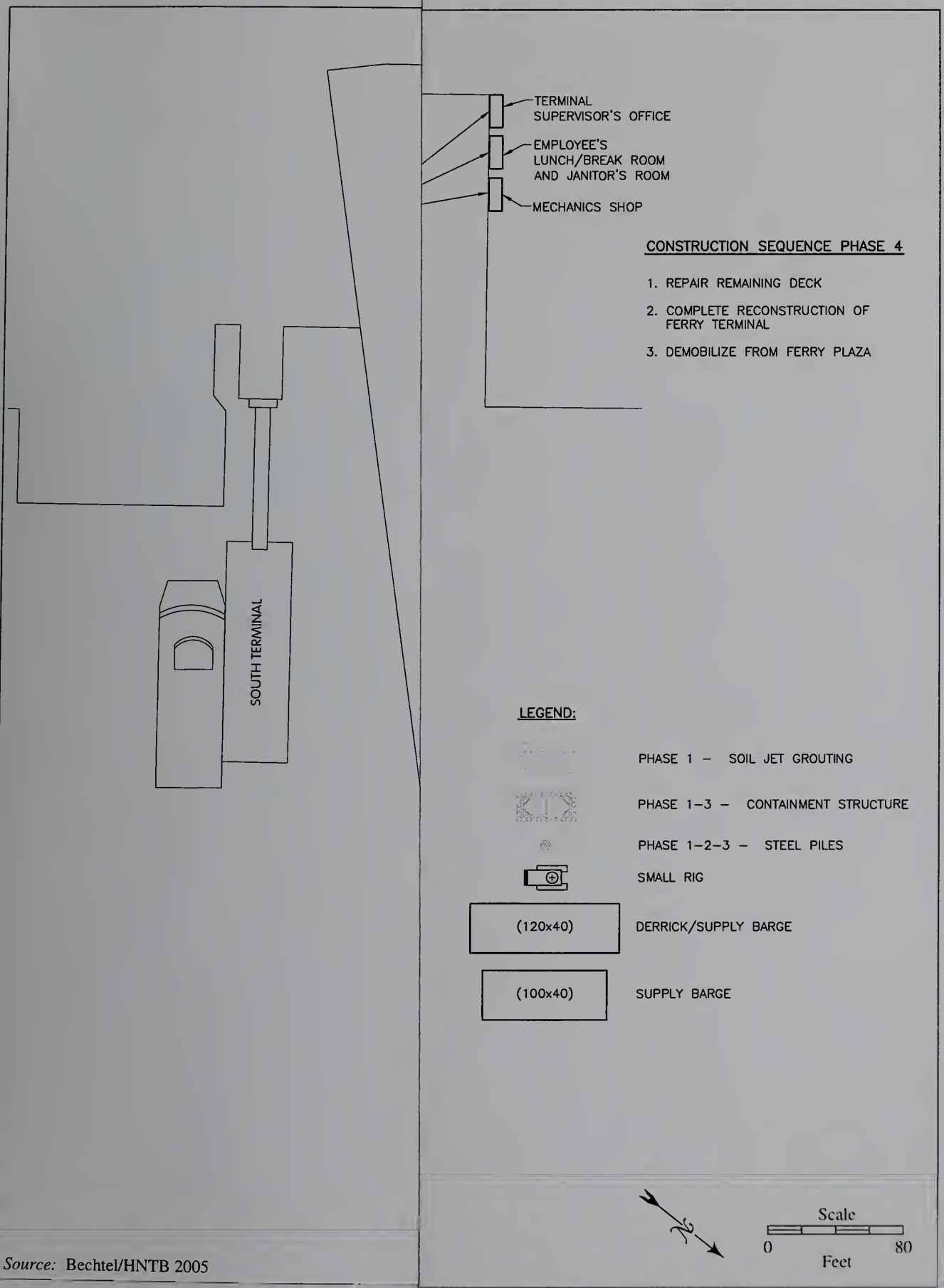
Source: Bechtel/HNTB 2005

Figure 5. San Francisco Transition Structure Construction Phase 3



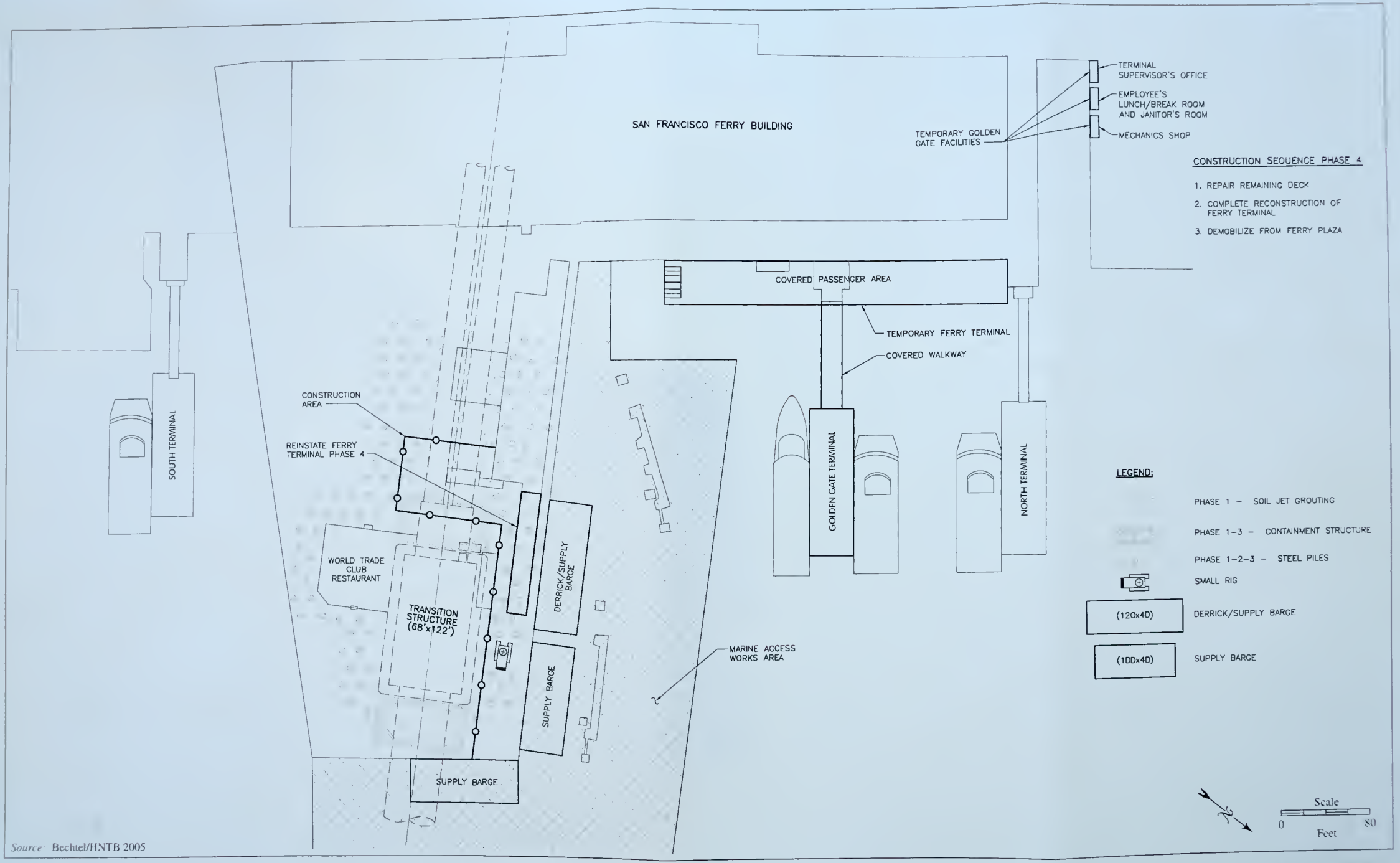
Source: Bechtel/HNTB 2005

Figure 5. San Francisco Transition Structure Construction Phase 3



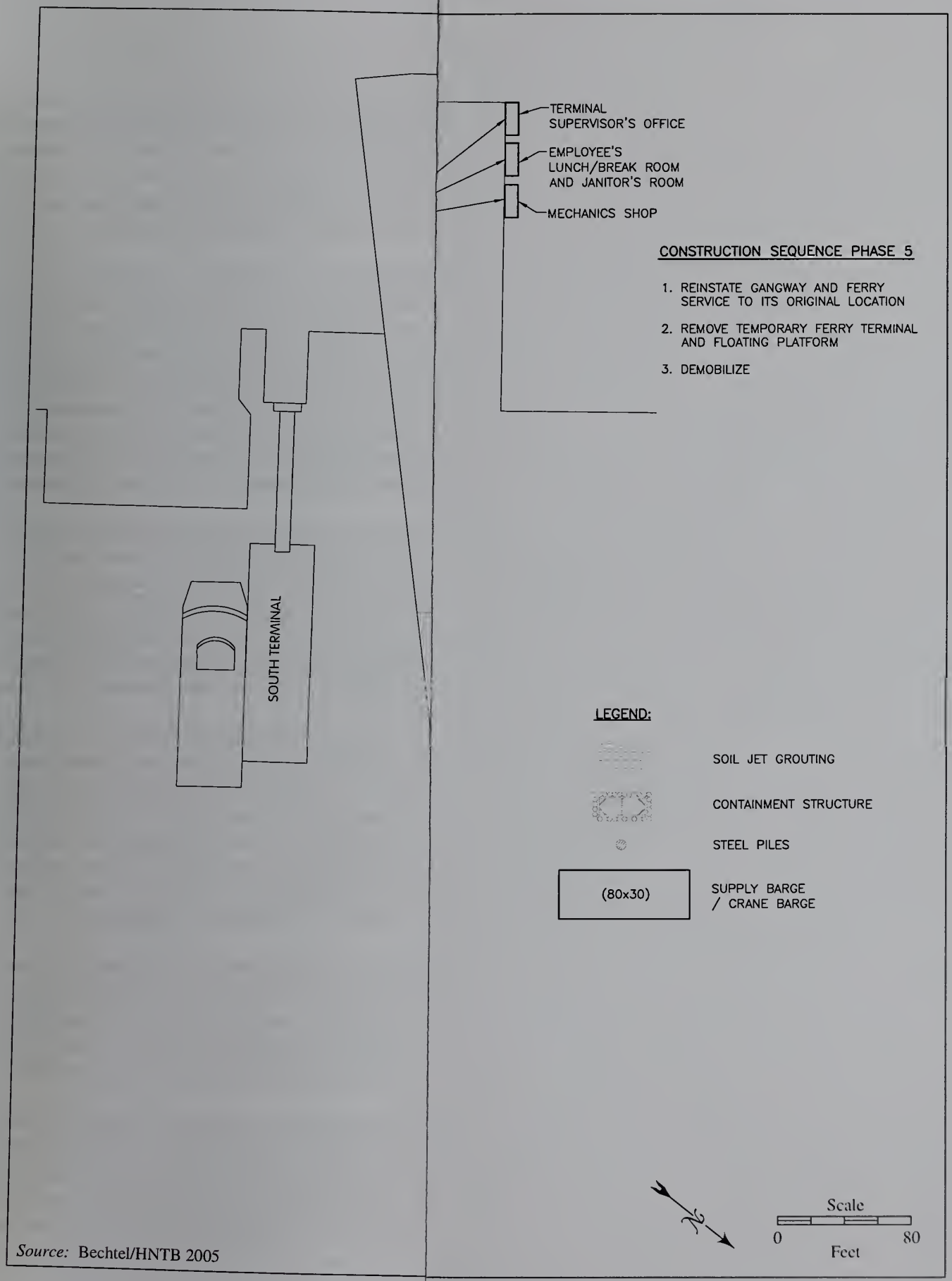
Source: Bechtel/HNTB 2005

Figure 6. San Francisco Transition Structure Construction Phase 4



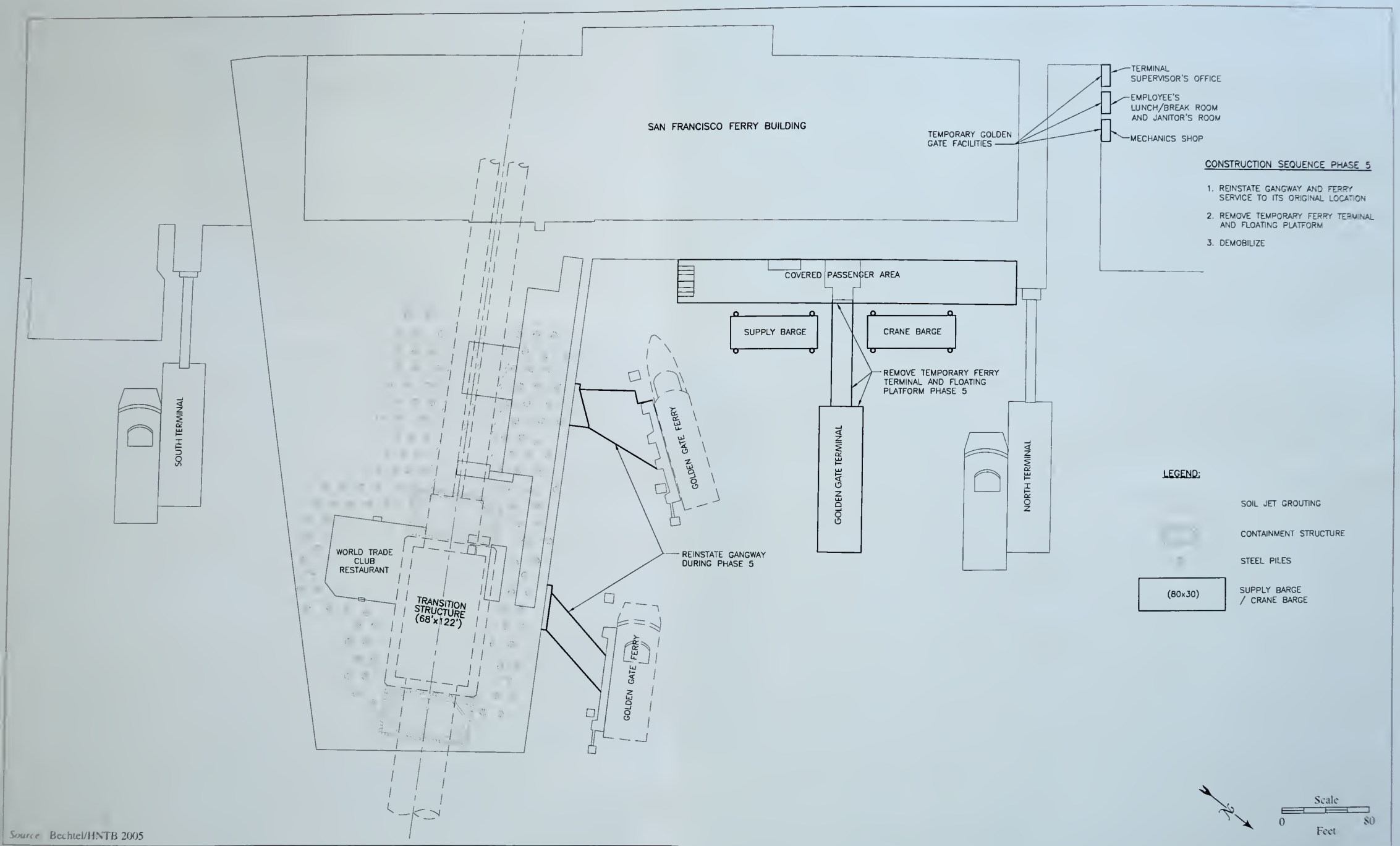
Source: Bechtel/HNTB 2005

Figure 6. San Francisco Transition Structure Construction Phase 4



Source: Bechtel/HNTB 2005

Figure 7. San Francisco Transition Structure Construction Phase 5



Source: Bechtel/HNTB 2005

Figure 7. San Francisco Transition Structure Construction Phase 5

facilities (i.e., a replacement facility that will effectively achieve the same level of operation that presently exists), but will also be consistent with applicable current building and seismic code standards. Construction of the temporary terminal at future Gate C would require use of a supply and crane barge (see Figure 2). BART will continue to coordinate and consult with any affected agencies to determine the final specifications for the proposed relocation, including the location of proposed temporary support facilities.

As part of Phase 1 construction, the approximately 13,300 sf Golden Gate Ferry Terminal and Ticket Office would be removed. Implementation of soil jet grouting around the Tube below mud line, installation of up to 48 steel pipe piles associated with the Pile Array, and construction of the east end containment structure would occur during this phase (see Figure 3). Activities associated with Phase 1 would require closure of up to 39,000 sf of public access area on the Platform to accommodate the construction equipment, including cranes, rotators, grouting rigs, and construction supply barges. Reconstruction of a portion of the Platform when space is made available would occur before the beginning of Phase 2 construction activities. The anticipated construction area and the marine access work area are depicted on Figure 3.

Phase 2 construction would include installation of up to 64 steel pipe piles associated with the Pile Array, and would affect a smaller portion of the Platform compared to the Phase I construction area (see Figure 4). Closure of public access areas would be required to accommodate the construction equipment, including cranes, rotators, small rigs, and construction supply barges. Reconstruction of the eastern portion of the Platform when space is made available would occur before the beginning of Phase 3 construction activities. The anticipated construction area and the marine access work area are depicted on Figure 4.

Phase 3 construction would require closure of a central portion of the Platform to accommodate installation of up to four steel pipe piles associated with the Pile Array, and the west end containment structure (see Figure 5). Closure of public access areas would be required to accommodate the construction equipment, including a crane, a rotator, a small rig, and construction supply barges. Reconstruction of a portion of the Platform when space is made available would occur before the beginning of Phase 4 construction activities. The anticipated construction area and the marine access work area are depicted on Figure 5. All retrofit activities proposed for the transition structure would be concluded during this phase.

Phase 4 construction includes replacement of the remaining portion of the affected Platform deck, reconstruction of the Golden Gate Ferry Terminal infrastructure at the Platform, and demobilization. The anticipated construction area and the marine access work area are depicted on Figure 6. At the conclusion of Phase 4, the Platform would be returned to pre-existing conditions, as well as replacement of hardscape and landscape amenities and public uses.

Phase 5 construction includes replacement of the original Golden Gate Ferry Terminal gangway, and relocation of Golden Gate District ferry services to its original location on the Platform. The temporary terminal and floating dock at future Gate C, as well as nearby temporary support facilities, would also be removed during this construction phase, and all construction equipment and supply barges demobilized. The anticipated construction area is depicted on Figure 7.

The typical marine access work areas identified on Figures 3 through 6 take into account the full extent of anchor wire rope lines, as all construction supply barges will be tied off to the northern and eastern end of the Platform and will not interfere with ferry movement at nearby terminals.

BART estimates that 6 of the total 116 steel pipe piles associated with the Pile Array may require installation by impact hammer due to difficult soil conditions. Installation of the remaining steel pipe piles would occur by oscillating or rotating excavation techniques that produce minimal noise and vibration effects. The approximately 100 tubular sheet piles associated with the containment structures would be installed using the hydraulic push method, which would also result in minimal noise and vibration effects.

2.1.3 Dredged Material and Fill Volumes

As a result of eliminating several retrofit techniques previously analyzed in the EA associated with Transbay Tube and San Francisco Transition Structure construction (i.e., stitching the Tube, piles and collar anchorage, and the Isolation Walls Retrofit Concept), the total project dredge and fill volumes expected in San Francisco Bay by component would be reduced as identified in revised Table 2-1. In addition, the dredged material reuse scenario, in which dredged material would be placed back into each of the six project stitching holes along the Tube near the San Francisco Transition Structure, will not be implemented.

Table 2-1. Proposed Dredge and Fill Volumes in San Francisco Bay by Project Component

Project Component/Location	*Dredge Volume (cy)*[1]	*Duration of Construction*	*Fill Volume (cy)*[1]	*Number of New Piles*
Transbay Tube				
Micropile Anchorage	-	-	-	2,200
Vibro-Replacement	-	-	-	-
Seismic Joint Restoration	-	-	-	-
Total	-	-	-	2,200
San Francisco Transition Structure				
Pile Array	-	2 – 3 years	-	116
Containment Structures	5,000	2 – 3 years	5,000	-
Ferry Plaza Platform[2]	-	-	-	80[3]
Total	5,000	2 – 3 years	5,000	196
Combined Project Components				
Total Project	5,000	2 – 3 years	5,000	2,396

Notes:

1. The dredge and fill volumes are based on the proposed retrofit method (containment structures) described in this chapter.
2. Installation of the pile array, containment structures, and soil grouting at the San Francisco Transition Structure would require removing and then restoring about 59,000 sf of the Ferry Plaza Platform.
3. Approximately 80 piles would be removed during platform removal; the number of replacement piles may change depending on the pile size and spacing called for in the final design.

Installation of the containment structures would require dredging up to 5,000 cy of material (primarily new Bay Mud) and placement of up to 5,000 cy of fill (Bentonite slurry). The total number of barge and/or truck trips required for offsite disposal of project dredged material would subsequently be reduced from those analyzed in the EA.

Project dredged material could be disposed entirely at one of the eight potential offsite reuse/disposal sites described in EA section 2.2.6.2 and Appendix A, or at a combination of these sites. All have the capacity to accommodate the 5,000 cy of dredged material. Pending further testing to determine feasibility for disposal, disposal of dredged material at the identified ocean site (e.g., SF-DODS) or in-Bay site (e.g., Alcatraz) would result in approximately four barge trips (assuming an effective barge load capacity of 1,500 cy). Similarly, disposal at any of the four identified upland reuse sites would require approximately four barge trips.

Disposal at the identified landfill sites (Altamont or Vasco Road) would require drying the dredged material at the Port of Oakland's Berth 10 rehandling facility prior to hauling it to a landfill. It is expected that all 5,000 cy of dredged material could be dewatered at the rehandling facility, which is consistent with the Port of Oakland's dewatering requirements. Transport to the rehandling facility would also require about four barge trips. Assuming use of 12-cy capacity dump trucks, transport of the dredged material (once dried) to a landfill site would require about 420 total truck trips. This would equate to approximately 7 truck trips/day during the 2-month dewatering period.

2.1.4 Schedule

As a result of eliminating certain retrofit techniques (i.e., stitching the Tube, piles and collar anchorage, and the Isolation Walls Retrofit Concept), and through refinement of construction phasing at the Platform, construction for the San Francisco Transition Structure could be reduced by up to 1 year compared to the duration analyzed in the EA. The approximate construction schedule for the project is revised as follows.

- Transbay Tube and Transition Structures
  - Transbay Tube micropile anchorage or vibro-replacement — 2 years
  - Vibro-replacement on land (Oakland end) — 8 to 9 months
  - San Francisco Transition Structure — 2 to 3 years
  - Oakland Transition Structure — 6 months
  - San Francisco Seismic Joint Restoration — 1½ years
- Aerial Guideways — 4 years
- Stations — 6 years
- Oakland Yard and Shop Area — 1¼ years

2.1.5 Alternatives Considered But Eliminated From Further Evaluation

In response to comments received, EA section 2.4.1 has been revised as follows: The following four design variations were considered as alternatives to stitching the Tube:

- Chemical or jet grouting was considered for anchoring the Tube's end to improve the friction between the Tube and soil. This alternative was determined to be less reliable and more expensive, and was eliminated from further evaluation.
- Installing a new seismic joint in the first section of the Tube east of San Francisco (east of the existing seismic joint on the eastern side of the San Francisco Transition Structure) was considered as an alternative to accommodate potential large movements at the seismic joint. The new joint would be constructed to have sufficiently large seismic movement capacity to

accommodate the predicted seismic motion demand at the end segment of the Tube. This alternative was found not to be viable due to high costs and risks to the BART system during construction, and was eliminated from further evaluation.

- Internal battered micropile Tube tie-downs were considered but rejected due to the lack of sufficient horizontal tension load capacity that could be generated in the micropiles, together with the complexities of construction in the tight quarters of the Tube gallery.
- The installation of a permanent cofferdam structure was considered as an alternative, interim safety measure prior to installation of all seismic retrofit measures and as a long-term redundant protection of the Tube. The cofferdam would surround the San Francisco Transition Structure and existing seismic joints, and would minimize the volume of Bay water entering the Tube if water leaks developed at the seismic joints following excessive joint movement. This concept was not feasible because sealing the cofferdam as it crossed the Tube on the Bay side would be very difficult to accomplish, and there would be a potential for damage to the Tube and adjacent structures. Also, the cofferdam structure could potentially alter the hydrological effects of the transition structure on the Bay and would potentially become a long-term maintenance problem because of standing water inside the cofferdam. Therefore, this alternative was eliminated from further evaluation.

2.2 RESOURCE AREA REVISIONS

The EA analysis of the following environmental resource areas did not change as a result of BART-initiated project revisions or in response to comments: Water Resources; Geology/Seismicity; Risk of Upset/Safety; and Visual Resources.

In response to vessel transportation impacts during construction, a mitigation measure requiring construction of a temporary Golden Gate Ferry Terminal at future Gate C was proposed in EA Table 3.4-7. As a result of comments received on the EA, new details regarding this mitigation measure have been developed and are described in section 2.2.3. New analysis was also conducted to determine the extent of potential impacts associated with implementation of this measure. The conclusions of this assessment are summarized under section 2.2.3, and are described in greater detail under section 2.2.8.

2.2.1 Noise

EA Table 3.2-3 provides a summary of construction noise level data. To clarify the data identified for impact pile drivers, a table note has been added to reiterate that proposed project piles are not typical and that noise levels are expected to reach 110 dBA. This added clarification is consistent with information provided on EA page 3.2-8, lines 13-18. Because the EA assumed that pile driving activities would generate noise levels up to 110 dBA in its analysis (not the lower number identified in Table 3.2-3), no new analysis is required.

The following information is provided to clarify noise levels expected from proposed retrofit activities at the San Francisco Transition Structure, including specifically those resulting from impact pile driving. Further design review indicates that an estimated 6 of the total 116 steel pipe piles associated with Pile Array installation at the San Francisco Transition Structure may require installation by an impact hammer due to difficult soil conditions. This substantially reduces the potential for adverse noise impacts, as the remainder of these piles would be

installed by rotating or oscillating techniques that are not expected to produce noise levels or vibration in excess of approved standards. Further testing and monitoring of noise levels associated with the rotating and oscillating techniques will be conducted through pilot demonstrations to be completed prior to commencement of construction activities at the Platform. All tubular sheet piles associated with the containment structures would be installed using the hydraulic push method, which would result in negligible noise levels.

(Revised) Table 3.2-3. Typical Construction Equipment Noise Emission Levels

Equipment	*Typical Noise Level (dBA) at 50 Feet*	*Equipment*	*Typical Noise Level (dBA) at 50 Feet*
Air Compressor	81-85	Grader	83-85
Backhoe	80-83	Hoe-Ram	85-90
Chain Saw	85	Impact Wrench	85
Compactor	82	Jackhammer[1]	88-89
Compressor	85-90	Loader	85-88
Concrete Truck	81	Paver	80-89
Concrete Mixer	85	Pile Drive, Impact[2]	101
Concrete Pump	82	Pile Driver, Sonic	96
Concrete Vibrator	76	Pump	80-85
Crane, Derrick	86-88	Rock Drill	98
Crane, Mobile	83-87	Roller	74
Dozer	84-88	Scraper	89
Drill Rig	88	Slurry Machine	91
Dump Truck	84	Slurry Plant	78
Excavator	84	Truck	85-89
Generator	85	Vacuum Excavator	85-88
Gradall	86		

Notes:

1. Jackhammers (90 lb. class) rated at 82 dBA at 7 meters are available. This would be equivalent to 74 dBA at 50 feet. These are silenced with molded intricate muffler tools.
2. The proposed large-diameter steel pipe piles are not "typical" construction equipment. Based on noise measurements taken while driving these larger piles, noise levels are expected to reach up to 110 dBA at a distance of 50 feet (Illingworth & Rodkin, Inc. 2001).

Source: National Cooperative Highway Research Program (1999)

In addition, project construction noise control measures have been revised consistent with mitigation proposed for the San Francisco Downtown Ferry Terminal Project (San Francisco Planning Department et al. 1997) and successfully implemented during construction of the San Francisco Muni Project. The measures would ensure that maximum intermittent noise levels on sensitive receptors within 200 feet of the transition structure would be reduced to within BART construction noise limits for commercial areas with no nighttime residency (85 dBA at all times). Sensitive receptors located over 200 feet from construction would not be subject to excessive noise levels or vibration, including Sinbad's Restaurant, Agricultural Building, and Pier 1 in the immediate vicinity. Facilities located further inland along the Embarcadero, including the Golden

Gateway residential area, Rincon residential area, Ferry Park, Hyatt Hotel, and Embarcadero Center also would not be substantially affected.

Project Construction Standards for Noise

Implementation of the following standard construction noise control measures will ensure noise levels associated with use of general construction equipment, dredging activities, and oscillating or rotating techniques and experienced by sensitive receptors within 200 feet of the San Francisco Transition Structure are maintained within BART construction noise limits.

- Temporary noise control barriers will be installed around noise-generating construction equipment to effectively screen adjacent noise sensitive uses. Barriers may be constructed with 8-12 feet tall plywood planks (standard construction site barrier), quilted pre-fabricated noise control blankets, which would cover the construction equipment in its entirety, or other similar materials. The proper utilization of such barriers will reduce noise levels by up to 10-15 dBA, to within BART construction noise limits.
- All construction equipment driven by internal combustion engines will be equipped with the best available mufflers.
- Welded rather than bolted steel connections will be used whenever possible to minimize the use of impact wrenches.
- Construction vehicles will turn off engines and compressors when not in operation.

The following construction noise control measures would reduce noise levels on sensitive receptors within 200 feet of the San Francisco Transition Structure associated with the use of impact pile-driving equipment for installation of the estimated 6 piles.

- Impact pile driving hours will be limited to between 7:00 a.m. and 12:00 noon and between 1:30 p.m. and 3:30 p.m. to reduce the impact on the restaurant patrons and other people using the public outdoor and indoor spaces at the San Francisco Ferry Plaza. This scheduling will be done in conjunction with the restaurant management and persons responsible for public access to the Ferry Plaza.
- Impact pile drivers will be shielded with shrouding using noise barrier materials to reduce noise impacts at adjacent noise sensitive receptors. Proper shielding will reduce noise levels by at least 10-15 dBA, to within BART construction noise limits.
- Temporary noise control barriers will be installed around noise-generating construction equipment to effectively screen adjacent noise sensitive uses. Barriers may be constructed by using 8-12 feet tall plywood planks (standard construction site barrier), quilted pre-fabricated noise control blankets, which would cover the construction equipment in its entirety, or other similar materials. The proper utilization of such barriers will reduce noise levels by up to 10-15 dBA, to within BART construction noise limits.

Prior to construction, BART will also convene a meeting with representatives of businesses in the area within 200 feet of the Ferry Plaza Platform for the purpose of discussing noise-related issues. The following will be among the topics addressed:

- Outline the process to inform interested persons of the scheduling of excessive noise-generating construction activities (e.g., pile driving);

- Identify a noise consultant to conduct pilot demonstration noise monitoring in the tenant buildings prior to commencement of construction activities at the Platform of a major noise-generating construction activity (e.g., pile driving). Based on the results of the trial noise monitoring, BART will implement feasible actions suggested by the noise consultant to further reduce noise levels any excessive noise levels to within acceptable BART construction standards;
- Describe the proposed noise-limiting specifications that will be issued by BART as part of construction contract specifications for the project; and,
- Identify a process for interested persons to provide feedback as to the effectiveness of noise reduction measures, whether in person or by hotline.

In addition, either BART or the general contractor will assign a Disturbance Coordinator, who will be available to promptly respond to complaints/issues, and will be responsible for resolving any issues in an expeditious manner through implementation of the following tasks:

- Be familiar with the project and construction schedule, including attending all required construction meetings; and
- Take an active role in monitoring project complaints with respect to noise. This includes communication with neighboring commercial tenants, property owners, and patrons, and being available to respond to comments and complaints. The Disturbance Coordinator will take an active role in monitoring noise levels and ensuring reduction measures are being implemented properly.

Implementation of the above noise reduction measures will ensure that noise impacts remain less than substantial. Nevertheless, BART will continue to consult with the Port and other affected entities to refine the implementation of these measures, in order to further minimize any unanticipated impacts.

2.2.2 Cultural Resources

In response to comments received, EA section 3.3.2.2 is revised to incorporate the following mitigation measure for the San Francisco Ferry Building and Agricultural Building.

Mitigation Measure. Implementation of the following measure will ensure that unforeseen impacts on the San Francisco Ferry Building and Agricultural Building related to impact pile driver vibration are avoided.

- A pre-construction and post-construction survey shall be performed on the San Francisco Ferry Building and the Agricultural Building to document the existing condition of the structures. The structural surveys shall identify and describe any pre-existing internal and external structure cracking, settlement, and distress, and the condition of foundations, walls, and other structural elements. The surveys shall be taken under the direction of a licensed Professional Structural Engineer in the State of California and shall be in accordance with industry-accepted standard methods. Written reports documenting conditions before and after project completion shall be prepared under the supervision and approval of a Structural Engineer, licensed to practice in the State of California. The reports shall include photo-documentation to verify that no structural damage occurred to the San Francisco Ferry Building and Agricultural Building during project construction.

2.2.3 Transportation

Ground Transportation

In response to comments expressing concern that project construction at the San Francisco Transition Structure would result in pedestrian circulation impacts due to restricted public access on the Platform, the following mitigation measures are proposed to ensure adequate flow is maintained in and around the Ferry Building throughout construction.

Mitigation Measures. The following measures will be implemented to avoid substantial increases in delay for pedestrian movements resulting from blocked access at or near the Ferry Building and ferry terminals.

- BART shall maintain a 40-foot wide pedestrian corridor behind the Ferry Building throughout project construction at the Ferry Plaza Platform.
- BART shall not redirect, block, or otherwise interfere, with current ferry passenger queuing areas associated with Bay Link, Blue & Gold Fleet, and City of Alameda ferry services at the North and South Terminals.

Additional design review also resulted in revisions to EA section 3.4.1.2.3, which previously discussed the impacts of hauling 222,000 cy of dredged material to a landfill site. Project changes resulting in a 98% reduction in the total dredged material volume requiring offsite disposal (5,000 cy), would result in fewer daily truck trips to a landfill site. Dredged material hauling would only occur for approximately 2 months during the dewatering period.

Impacts related to dredged material hauling could still occur from the movement of up to 7 daily truck trips (each with 12-cy capacity) from the Port of Oakland to either the Altamont or Vasco Road Landfills, as the four freeway segments identified in the EA on page 3.4-18, lines 16-26, operate at LOS F during the A.M. and P.M. peak hours. However, this temporary impact on freeway operations at these four locations will be avoided because the construction contractor will be required to transport dredged material outside of peak hours (6 A.M. to 10 A.M. and 3 P.M. to 7 P.M.). Hauling dredged material outside of peak hours when these freeway segments are operating at LOS D or better would not degrade freeway operations.

In addition, dredged material hauling would add approximately 7 daily truck trips for 2 months to the Southfront Road and Interstate 580 eastbound ramp intersection along the proposed haul route; the intersection currently operates at LOS F during the P.M. peak hour. However, this temporary impact will also be avoided because the construction contractor will be required to transport dredged material outside of peak hours (6 A.M. to 10 A.M., and 3 P.M. to 7 P.M.).

Vessel Transportation

The existing circulation and transportation uses located at the San Francisco Ferry Building and Ferry Plaza Platform were summarized in the EA on page 3.4-23. To ensure these uses are accurately depicted, the following updated information is provided.

The San Francisco Ferry Building is located in downtown San Francisco on the far eastern edge of the city, on the western edge of the Bay. As shown in EA Figure 3-4, the Ferry Building has three platforms (the North Terminal, Ferry Plaza Platform, and South Terminal) providing six berths.

A fourth float, Pier ½, is no longer used for regular ferry service. Four ferry companies with various routes operate from the Ferry Building: Bay Link; Blue & Gold Fleet; Golden Gate Ferry; and City of Alameda Ferry. Service is provided by monohulls and catamarans. Monohull vessels are typically the slower of the two types, but are larger, deeper draft vessels with a greater passenger capacity, while catamarans are faster and smaller with a more shallow draft. In 2000-2001, approximately 11,800 persons per day took ferries to or from the Ferry Building, resulting in an annual ridership to/from the Ferry Building of 3,705,550 passengers (WTA 2002). Ridership across all routes is expected to increase by about 12 percent annually (WTA 2002).

North Terminal Ferries

Ferry service at the North Terminal is provided by both Bay Link and the Blue & Gold Fleet. Three routes are operated on a daily basis, as described below.

Tiburon-San Francisco. This ferry route operated by the Blue & Gold Fleet makes eight daily roundtrips between Tiburon and the San Francisco Ferry Building. The ferries operate every hour during the morning and evening commute (Blue & Gold Fleet 2005). Service is typically provided by a high-speed catamaran vessel to and from the northern berth of the North Terminal.

Vallejo-San Francisco. Both the Blue & Gold Fleet and Bay Link offer ferry service on this route. Blue & Gold Fleet makes 20 daily roundtrips between Vallejo and the San Francisco Ferry Building. The ferries operate about once an hour during the morning and evening commute (Blue & Gold Fleet 2005). Service is typically provided by a high-speed catamaran vessel to and from the northern berth of the North Terminal.

Bay Link makes 15 daily round trips between Vallejo and the San Francisco Ferry Building. The Vallejo Ferry arrives and departs from the Ferry Building every 30 to 90 minutes in the morning, and about every hour in the afternoon and during the evening rush period (Bay Link 2005). This service is provided by a high-speed catamaran at the southern berth of the North Terminal (Bay Link 2005).

Based on the revised project description, no impacts are expected on North Terminal ferries.

Ferry Plaza Platform Ferries

Ferry service at the Platform is provided by the Golden Gate Bridge, Highway, and Transportation District (Golden Gate District). Two routes are operated on a daily basis from the Golden Gate Ferry Terminal, as described below. In 2003-2004, total annual ferry ridership for both routes was 1,660,369 passengers; daily ridership was approximately 5,500 (Golden Gate District 2005). Existing Golden Gate Ferry Terminal infrastructure and operations on the Platform include:

1. Two operational berths, coupled with staging areas and wide ramps and walkways that allow for simultaneous loading and unloading of two ferries with a five-minute turnaround time at the dock. There are currently two ramps in use for each vessel, to enable upper deck loading.
2. An integrated security system that includes, among other things, perimeter access control and surveillance, thereby allowing Golden Gate District to fully respond to a

heightened level of security. Additionally, Golden Gate District is currently participating in a pilot project with the Department of Homeland Security.

3. Passenger amenities for ferry customers include a heated, covered passenger waiting area, restrooms, a staffed ticketing office, and decorative planters and benches. A publicly accessible, covered viewing area is also available on the second level of the Ferry Building.

4. Ferry service support facilities include restrooms and space for employee breaks, as well as fare collection equipment, communications, storage, and maintenance areas. An industrial ice machine replenishes supplies on the ferries. Golden Gate District's facilities also include an emergency power generator.

Larkspur-San Francisco. The Larkspur-San Francisco service provides 20 roundtrips from Larkspur to the Platform. During the morning and evening rush hours, this route serves the Ferry Building approximately every 15 to 60 minutes. In the afternoon, ferries arrive and depart on this route at least once an hour (Golden Gate District 2005). Two high-speed catamarans serve this route (Golden Gate District 2005). In addition, there is one afternoon trip from San Francisco to Larkspur in a mono-hull ferry.

Sausalito-San Francisco. The Sausalito-San Francisco service makes nine daily round trips (10 daily trips in the summer). Ferries between San Francisco run every 70-120 minutes, depending on time of day (Golden Gate District 2005). This ferry route operates from the Ferry Plaza Platform using a mono-hull (Golden Gate District 2005). The Golden Gate ferry berths at the Ferry Plaza are specially designed to handle these different types of vessels.

South Terminal Ferries

The City of Alameda currently operates two ferry services at the South Terminal Gate E, including the Alameda-Harbor Bay Ferry, and Alameda/Oakland Ferry. All ferry service at the South Terminal is provided by catamaran vessels, but in the event a catamaran is under repair, mono-hull vessels operating from the Plaza Platform can be used (personal communication, A. Anderson, City of Alameda 2003; Metropolitan Transportation Commission 2004).

Alameda-Harbor Bay. The Alameda-Harbor Bay Ferry makes six round trips daily from the northern berth of the Ferry Building North Terminal, serving approximately 450 daily passengers and 130,145 annual passengers (WTA 2002).

Alameda/Oakland–San Francisco. The Alameda/Oakland Ferry makes 13 round trips daily from the southern berth of the Ferry Building South Terminal. Annual ridership in 2000-2001 was 540,695; daily ridership is on the order of 1,600 (WTA 2002).

In response to comments received regarding the effectiveness of mitigation measures proposed to reduce or avoid impacts to these vessel operations, the EA Table 3.4-7 ferry mitigation measures are revised as follows, to more specifically address and minimize the vessel transportation impacts anticipated under the plaza-based construction method. EA Table 3.4-7 is, therefore, deleted and superseded by the mitigation measures identified in this revised EA.

Mitigation Measures. Implementation of the following measures would reduce impacts associated with precluding access to the Golden Gate District's Berths 1 and 2 located on the northern side of the Platform, and removal and replacement of Golden Gate District's vessel infrastructure at the Ferry Terminal.

- BART shall relocate and construct a temporary Golden Gate Ferry Terminal, including deck and floating dock, at future Gate C in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 et seq.), as applicable. BART shall continue to work with the Golden Gate District and the Port regarding the design and construction of the temporary ferry facilities. The temporary terminal shall be designed with dual slips in order to accommodate simultaneous loading and offloading of two ferries. BART shall also provide functionally equivalent temporary passenger amenities and ferry service support facilities at the terminal, including a secured, covered passenger waiting area and walkway, restrooms, and ticket booth, as well as within the general vicinity of the terminal, including a terminal supervisor's office, employee lunch/break room with janitor room, and a mechanics shop housed within temporary trailers. Additional details describing the temporary Golden Gate Ferry Terminal are provided below, and depicted on Figure 8.[2] The above description is conceptual and both location and exact features of the temporary terminal may be changed during final design, so long as the changes do not create additional impacts, taking into account the applicable mitigation described in the EA.
- BART shall reconstruct functionally equivalent facilities for the Golden Gate Ferry Terminal in its original location at the Ferry Plaza Platform at the conclusion of proposed project work. BART shall continue to work with the Golden Gate District regarding the redesign and in-place, reconstruction of Golden Gate District facilities at the Ferry Plaza Platform. The Ferry Terminal at the San Francisco Ferry Plaza Platform shall be rebuilt based on further consultation between BART, Caltrans, FHWA, the Golden Gate District, and other responsible agencies (e.g., Port of San Francisco, BCDC). Subsequent to reconstruction of the Golden Gate District's Ferry Plaza Platform Terminal, BART shall be responsible for the removal and disposal of all temporary facilities.

Implementation of the following measures will ensure continued ferry operations during the duration of retrofit activities, in the event of unscheduled construction supply barge movements, unscheduled ferry maintenance, or emergency situations that may affect any of the six berths at the Ferry Building.

- BART shall tie off construction supply barges to the northern and eastern ends of the Platform to avoid precluding access to the northern berth of the South Terminal, or interfering with ferry operations at the proposed temporary Golden Gate Terminal at future Gate C. In the occasional event that BART needs to move a construction supply barge during ferry hours of operation, which may temporarily preclude access to the northern berth of the South Terminal, BART shall provide 48 hours advanced notification to the City of Alameda prior to any to movement of the supply barge.

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[2] The configuration of the temporary Golden Gate Ferry Terminal facilities shown in Figure 8 is intended to illustrate a reasonable worst-case scenario for the extent of the temporary deck for purposes of impact analysis. The specific configuration of the temporary facilities may be revised based on subsequent discussions with the District and the Port, so long as impacts are not materially increased.

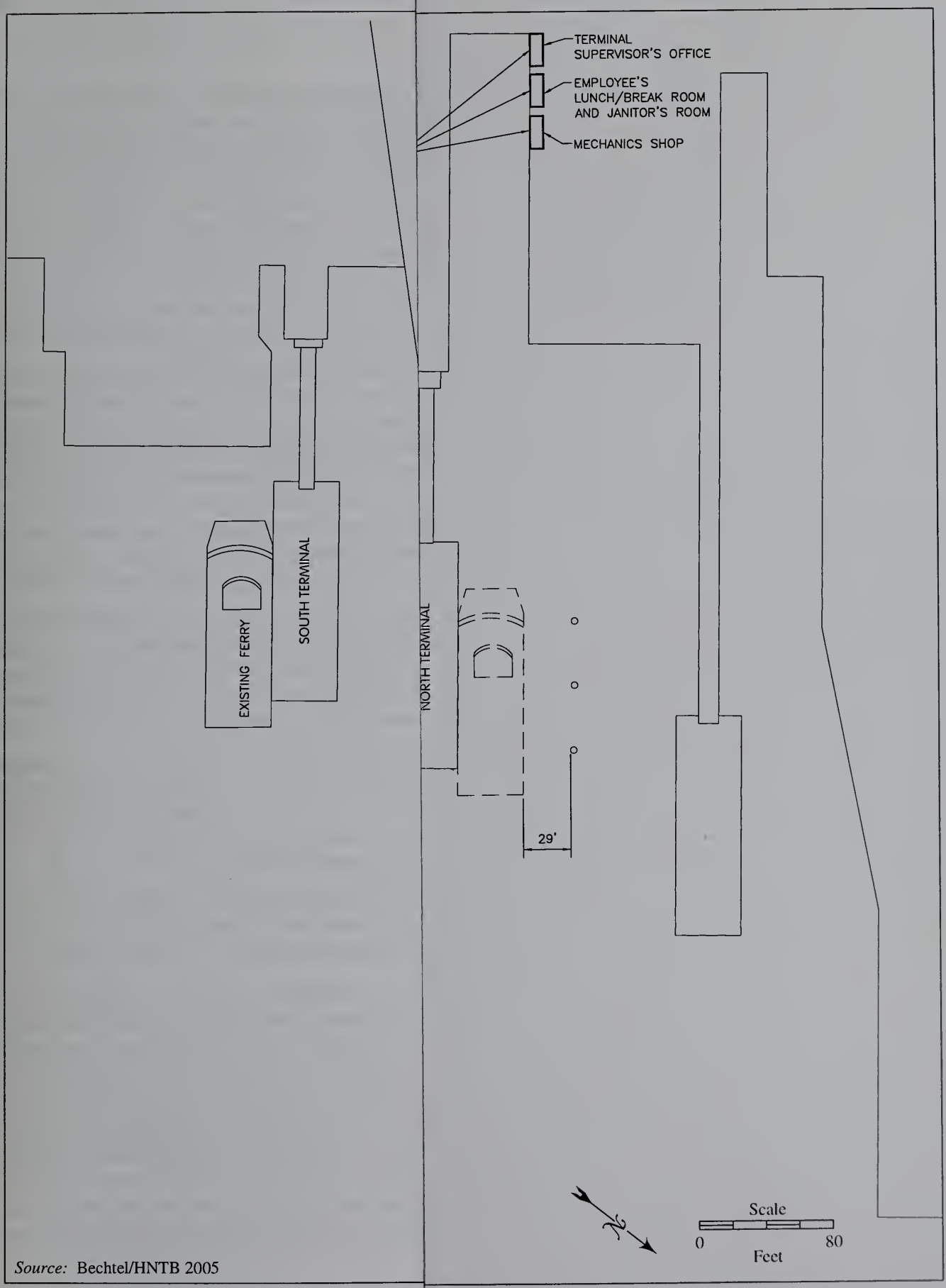
- In case of unscheduled maintenance or emergency situations, BART shall make arrangements with the Port of San Francisco for access to the SBC Park ferry berth or the Pier 27 ferry berth. Either ferry berth location would be expected to be available during construction at the Ferry Plaza Platform.

In conclusion, retrofit techniques at the San Francisco Ferry Plaza Platform have been redesigned to ensure continued ferry terminal operations throughout the duration of construction. Consequently, mitigation requiring adjustment of ferry schedules is not expected to be required except on an occasional basis and with the concurrence of the ferry operator.

BART has integrated new details into the conceptual design of the temporary ferry terminal to ensure that functionally equivalent infrastructure and operations are provided at the proposed relocated site to avoid impacts associated with loss of ridership. Figure 8 depicts the proposed layout of the temporary terminal and relocated facilities. Design and construction of the temporary Golden Gate Ferry Terminal consisting of a temporary wood deck and a floating dock would take a total of about 1 to 2 years (actual construction would occur for 8 to 9 months), and would be completed during construction Phase 0 (see Figure 2) prior to the beginning of construction on the Platform. The floating dock shall be designed with dual slips to accommodate simultaneous loading and offloading of two ferries; both high-speed catamarans and mono-hull vessels presently in use would be accommodated. The size and arrangement of access ramps shall be similar to the existing North and South Terminals, although the access ramp from the deck to the berths would be widened to facilitate the same five-minute turnaround time at the dock.

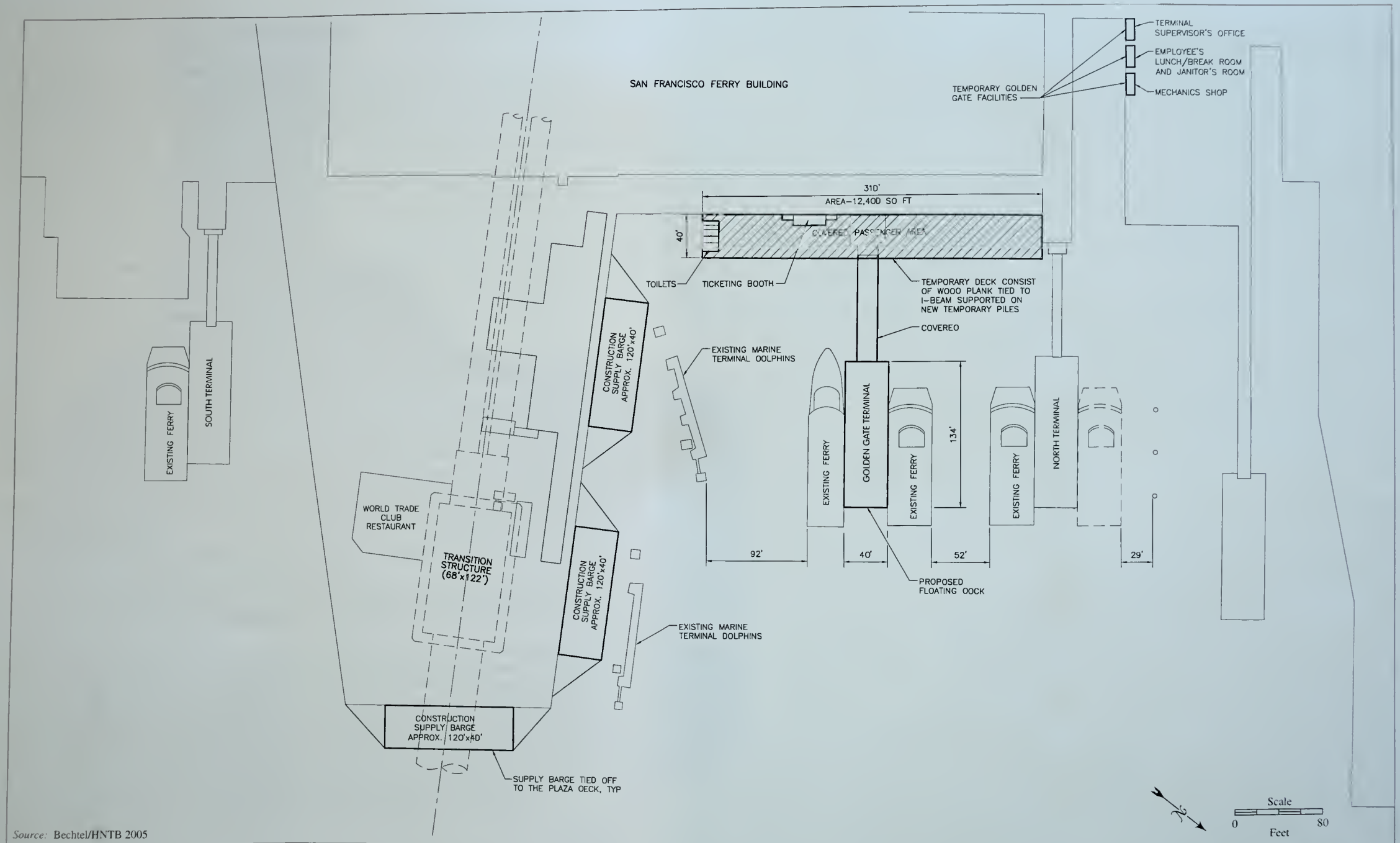
The proposed layout shall provide sufficient clearance between the proposed future Gate C float and the North Terminal to ensure that a Golden Gate catamaran could dock at the same time as a Bay Link vessel.

BART shall also provide functionally equivalent temporary passenger amenities and ferry service support facilities consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 *et seq.*), as applicable. A new, secured temporary deck consisting of wood plank (with a continuous smooth surface to minimize trip and fall hazards) supported by steel I-beams spanning new temporary piles shall be constructed to accommodate the proposed, approximately 12,400 sf covered passenger area. The temporary deck shall also accommodate a ticket office trailer adjacent to the entrance gate and toilet facilities. The temporary toilet facilities shall be connected to existing sewer lines under the Promenade. A comparable security system shall be provided at these facilities. The deck is intended to accommodate all appropriate passenger amenities, while minimizing encroachment on existing nearby Ferry Building uses. Therefore, other Golden Gate District support facilities, including the terminal supervisor's office, employee lunch/break room with janitor room, and a mechanics shop shall be provided in temporary trailers in the vicinity of the covered passenger area.



Source: Bechtel/HNTB 2005

Figure 8. Conceptual Temporary Golden Gate Ferry Terminal



Source: Bechtel/HNTB 2005

Figure 8. Conceptual Temporary Golden Gate Ferry Terminal

BART shall reconstruct functionally equivalent facilities for the Golden Gate Ferry Terminal in its original location at the Ferry Plaza Platform at the conclusion of proposed project work. BART shall continue to consult with the Golden Gate District regarding the specifications of the Ferry Plaza Platform redesign and in-place, reconstruction of Golden Gate District facilities. The Ferry Terminal at the San Francisco Ferry Plaza Platform shall be rebuilt based on plans developed during further consultation between BART, Caltrans, FHWA, the Golden Gate District, and other responsible agencies (e.g., Port of San Francisco, BCDC). Subsequent to reconstruction of the Golden Gate District's Ferry Plaza Platform Terminal, BART shall be responsible for the removal and disposal of all temporary facilities at future Gate C (temporary deck and floating dock) and the nearby temporary employee and maintenance trailers.

Implementation of this mitigation measure would result in other impacts not previously described in the EA associated with the construction and operation of the relocated, temporary terminal during the approximately 2 to 3 year construction period at the Platform. Temporary impacts are expected on the following resources: water quality (from turbidity and fill); noise (from installation of piles associated with the temporary deck and float); ground transportation (from displacement of parking, and removal or interference with current pedestrian pathways and ferry passenger queuing areas); and visual resources (from blocking views in front of existing Ferry Building uses and outdoor seating areas). A more detailed assessment of impacts and identification of mitigation measures are provided in section 2.2.7 of this revised EA.

Because the total dredged volume would be reduced, the total number of barges required in the vicinity of the Platform would also be reduced. Therefore, previously identified mitigation measures on EA page 3.4-33, lines 7-25, are no longer applicable. However, the following mitigation measures will be implemented for the proper handling of the 5,000 cy of dredged material, as well as for placement and movement of barges to prevent impacts to ferry operations.

Mitigation Measures. Implementation of these measures will ensure that barges associated with dredged material storage would not interfere with ferry operations, or the movement of construction supply barges.

- No more than one barge accepting/storing dredged material shall be present at or in the vicinity of the Ferry Plaza Platform at any given time.
- Barges moving dredged material shall operate only during those hours when ferries are not in service (before 6:00 A.M. and after 9:30 P.M.). Dredged material storage barges shall remain stationary during hours when ferries are in service.

The project description and mitigation measures described above provide for resumption of Golden Gate ferry service at its current location at the conclusion of the proposed project. Subsequent to completion of this revised EA, it is possible that Golden Gate District and the Port of San Francisco may decide to redesign and permanently relocate the Golden Gate Ferry Terminal to an as-yet undetermined location. At the present time, that possibility is too speculative for analysis in this document. Environmental review of any permanent relocation plans subsequently developed by Golden Gate District and the Port would be the responsibility of those agencies. In the event that the Golden Gate District and Port complete the necessary environmental review and receive funding for such relocation, BART will coordinate with them to avoid duplication of efforts to restore full access to permanent Golden Gate ferry berths.

2.2.4 Hazardous Materials

In response to comments received, EA section 3.6.2.2 is revised to incorporate the following mitigation measures to ensure the proper handling, disposal, and use of hazardous materials during construction activities at the San Francisco Ferry Plaza Platform and vicinity.

Mitigation Measures. Implementation of the following measures will ensure proper handling, disposal, and use of hazardous materials in the vicinity of active pedestrian and public use areas at the San Francisco Ferry Building.

- All hazardous materials shall be labeled, stored, and located at a safe distance (based on material specifications) from outdoor public use areas, including but not limited to restaurant seating, ferry passenger waiting, Farmers Market, and entrances to the World Trade Club.
- BART shall contact the San Francisco Ferry Building Management within 72 hours prior to the start of construction activities that could release fumes that may affect Ferry Building tenants or patrons.

2.2.5 Biological Resources

Pursuant to the federal Endangered Species Act (ESA) Section 7 (for impacts to marine mammals and fish) and the Magnuson-Stevens Act (for impacts to Essential Fish Habitat [EFH]), BART, in cooperation with Caltrans and FHWA, initiated consultation with NOAA Fisheries/NMFS. Consultation was concluded in December 2005, following BART and FHWA's approval to implement restrictions for dredging and impact pile driving to avoid impacts to listed salmonid species during seasonal migrations.

Mitigation Measure. Implementation of the following measure will avoid impacts to listed salmonid species during seasonal migrations.

- BART shall not conduct any impact pile driving or dredging activities between December 1 and May 30.

As a result of implementing seasonal restrictions, and reducing the number of piles driven with an impact hammer from 116 to an estimated 6 piles, substantial underwater noise and vibration impacts from pile driving on common and sensitive fish and mammal species are not expected. Therefore, the EA section 3.9.2.2 mitigation requiring BART to install an Air Bubble Curtain (ABC) system to attenuate underwater noise during pile driving activities (EA page 3.9-17, lines 7-16) is no longer needed, and will not be implemented.

Due to construction schedule restrictions that will be placed on noise-generating activities to avoid substantial impacts on fish, EA mitigation measures requiring BART to conduct a pilot study, noise monitoring, (EA page 3.9-16, lines 28-34) and to obtain an Incidental Harassment Authorization (EA page 3.9-17, lines 17-21) are now required only to address potential impacts on marine mammals.

2.2.6 Air Quality

The EA on page 3.10-5, lines 15-25 identifies project measures that would be implemented to minimize off-site construction impacts related to air quality emissions, and references the BART Seismic Retrofit Project Construction Standards Manual for further details. This manual includes the following detailed information that would be included in all construction contractor specifications, to ensure that nearby outdoor dining and public access areas are not adversely affected.

The BAAQMD has identified a set of feasible "Basic," "Enhanced," and "Optional" control measures to reduce fugitive PM10 emissions from construction activities. The Enhanced control measures include all of the Basic measures and apply to sites larger than 4 acres. The Enhanced measures are applicable to this project, and are listed below.

Enhanced Control Measures. The following controls shall be implemented at all land-based construction sites during dry conditions:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard (i.e., the space between the top of the load and the top edge of the truck bed).
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour (mph).
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

BART Standard Specifications – Section 01 57 00 – Part 1.08. The BART District also has established Standard Specifications – Section 01 57 00, Part 1.08 requirements for dust control. These requirements (shown below) are included in BART contract specifications and will supplement the BAAQMD's control measures:

A. The Contractor shall provide dust control at all times, including holidays and weekends, as required to abate dust nuisance on and about the site that is the result of construction activities. Dust control shall be by means of sprinkled water or by other approved methods, except that chemicals, oil, or similar palliative shall not be used.

B. Quantities and equipment for dust control shall be sufficient to effectively prevent dust nuisance on and about the jobsite; and when weather conditions warrant. Sprinkler equipment shall be on hand at all times for immediate availability.

C. The Engineer shall have the authority to order dust control work whenever conditions warrant, and there shall be no additional cost to the BART District therefore. Dust control shall be effectively maintained whether or not the Engineer orders such work.

D. Complaints from the public shall be reported to the Engineer and shall be acted on immediately.

E. Where earthwork operations are in progress, keep exposed earth surfaces dampened continuously. Also, keep dirt accessways and roads dampened continuously.

F. If portions of the site are temporarily inactive or abandoned for whatever reason, provide dust control and abatement continuously during such periods of inactivity.

G. Where dust resulting from construction activities has collected on public sidewalks and streets, hose down such sidewalks and streets to abate flying dust particles. Clean all sidewalks and streets from accumulated dirt and dust.

2.2.7 Social Impacts

The EA on page 3.11-3, lines 37-40 and page 3.11-4, lines 1-5 briefly describes the public access improvements and uses on the Ferry Plaza Platform and vicinity. The following additional information is provided to supplement that description.

Much of the outdoor area on the Platform and around the Ferry Building is dedicated public access pursuant to several permits issued by BCDC to Port of San Francisco tenants. Public access improvements on the Platform include hardscape and landscape materials, railing, benches, signage, striping, vehicle demarcation-bollards, bull-rail, lighting, and utilities. The Port is co-applicant on the BCDC permits covering this area, and in certain cases is responsible for installing and maintaining public access improvements within the project area.

Several Port tenants at the Platform utilize this same outdoor area to serve other functions besides public access, including but not limited to: vehicular access for patrons of the World Trade Club, vehicular freight deliveries, trash collection and maintenance at the World Trade Club; the Golden Gate Ferry Terminal; Farmers Markets, including operational, staging, and parking areas; and for special events, entertainment, and public art displays (i.e., the Gandhi statue). These tenants are described in greater detail below.

The Ferry Plaza Limited Partnership (FPLP) operates a long-term lease on the Platform directly above and surrounding the San Francisco Transition Structure. The World Trade Club is a subtenant of FPLP and manages indoor and outdoor dining and conference/entertainment facilities in this location. Vehicular and pedestrian access, as well as commercial delivery access, is provided to the World Trade Club at the Platform. Landscape and hardscape areas are maintained by the World Trade Club around the facility perimeter.

The Center for Urban Education about Sustainable Agriculture (CUESA) operates Farmers Markets and educational programs four days per week, including the largest on Saturday, and includes approximately 45,000 sf of Platform area for operation and staging, as well as about 5,000 sf of parking area on the eastern end of the Platform.

Port tenants and uses at the Ferry Building include the Marketplace, which provides about 65,000 sf of public food market and outdoor dining area facing the Bay and Platform, as well as 175,000 sf of office space on the second and third floors.

In response to comments identifying an inconsistency between analysis provided in the Risk of Upset/Safety and Social Impacts sections, EA page 3.11-4, lines 36-39 are revised as follows. At the San Francisco Ferry Building, large construction equipment would be close to the Transbay Tube and transition structure, and it would be necessary to remove large portions (up to 39,000 sf) of the Ferry Plaza Platform. Construction would require the temporary removal and relocation of the Golden Gate Ferry Terminal and two ferry berths to a new proposed temporary terminal at future Gate C that is outside the active construction area.

Based on additional design review and in response to comments, the discussion of impacts at the San Francisco Ferry Plaza Platform on EA page 3.11-7, lines 22-28 is also revised as follows. The project would result in the temporary removal of up to 39,000 sf (nearly half) of the San Francisco Ferry Plaza. However, even with the addition of recent public access improvements and uses intended to stimulate public access activity (Port of San Francisco BCDC Permit 10-73, Amendment 15, June 17, 2005), much of the Platform area remains underutilized except during Farmers Markets. The Port of San Francisco's Phased Public Access Plan submitted to BCDC on August 4, 2005 further supports this observation by stating that people generally traverse the Platform area; however, it is not a destination site and is generally hidden from public view behind the Ferry Building. Furthermore, the Phased Public Access Plan states that given the obscure location of the Ferry Plaza and the lack of attractor-type uses on its immediate periphery, there is a general consensus that it may be difficult to truly enliven the Plaza. Moreover, this portion of the waterfront is not the only publicly-accessible scenic destination on San Francisco's Northeastern Waterfront; there are numerous other opportunities for sightseeing in the immediate vicinity.

Although portions of the Platform proposed for temporary removal during construction are currently underutilized, the temporary loss of public access viewing space and improvements (e.g., benches, ornamental landscaping, planters, etc.), as well as the Farmers Market areas, would be considered substantial. As part of project implementation, the Platform would be restored to its in-kind condition, including all hardscape and landscape improvements. In addition, the following mitigations are identified to offset the temporary loss of public access area.

Mitigation Measures. Implementation of the following measures will reduce the temporary loss of public access viewing space and improvements currently available at the Platform.

- BART, in coordination with the Port of San Francisco, CUESA, and other affected agencies or tenants, shall relocate the Farmers Market to a nearby, publicly-accessible location prior to commencement of construction at the Platform to allow continued operations throughout the duration of construction. A functionally equivalent area for operations, staging, and parking will be provided in this temporary location consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 et seq.), as applicable. Following completion of project construction, the Farmers Market area will be restored at the Platform to its pre-project condition.

- BART shall develop and install an interpretive display/kiosk explaining the project's history in the context of recent seismic upgrades completed in the downtown Waterfront District, as well as the engineering and local significance of the BART transit system, in a publicly-accessible location near the construction site. The location of the kiosk would encourage patron use of currently underutilized public access area of the waterfront.
- Information signs leading visitors to other nearby publicly-accessible scenic destinations along the waterfront shall be provided.

In addition, to avoid pedestrian and ferry passenger circulation impacts behind the Ferry Building, the project includes additional ground transportation mitigation measures as described in section 2.2.3 of this document. Revised vessel transportation mitigation measures, including for temporary removal and relocation of the Golden Gate Ferry Terminal, are also described in section 2.2.3.

Implementation of the proposed mitigation measures is expected to ensure that impacts from loss of public access viewing space will remain less than substantial. Nevertheless, BART will continue to consult with the Port and other affected entities to refine the implementation of these measures, in order to further minimize any unanticipated impacts.

2.2.8 Assessment of Vessel Transportation Mitigation Measure: Temporary Golden Gate Ferry Terminal

The proposed seismic retrofits at the San Francisco Transition Structure would require removal of portions of the Ferry Plaza Platform that if unmitigated would preclude access to two berths currently operated by the Golden Gate District's Larkspur and Sausalito services at the north end of the Platform. To avoid this impact, BART proposes to construct a temporary Golden Gate Ferry Terminal at future Gate C to maintain continual operations in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 *et seq.*), as applicable. Design and construction of the temporary terminal consisting of a deck and floating dock would take about 1 to 2 years total (actual construction would occur for 8 to 9 months), and shall be completed prior to the start of construction at the Ferry Plaza Platform. It is expected that Golden Gate District ferry operations would temporarily occur at this terminal for about 2 years, at which time BART shall reconstruct and replace the permanent Golden Gate Ferry Terminal at the Platform. BART will continue to coordinate with the Golden Gate District and Port of San Francisco to develop a functionally equivalent temporary ferry terminal and infrastructure, and to ensure that comparable permanent ferry facilities are reconstructed subsequent to project completion. The mitigation measure is described in greater detail under section 2.2.3.

The EA analysis for the following environmental resource areas did not change as a result of BART-initiated project revisions to the proposed vessel transportation mitigation measure: Cultural Resources; Geology/Seismicity; Hazardous Materials; Risk of Upset/Safety; Biological Resources; Air Quality; and Social Impacts. Additional temporary impacts to environmental resources associated with construction and operation of the temporary ferry terminal are discussed below.

Water Resources

Existing Setting

The environmental setting for the temporary terminal at future Gate C would be the same as described for the proposed project (see EA section 3.1.1.1). No upland (landside) or groundwater resources would be affected by construction of this terminal since proposed temporary support facilities located on land would be housed in trailers, and would not require any ground disturbance or construction. In addition, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented for all landside project activities in accordance with the Clean Water Act (CWA) Section 402 permits, as discussed in EA Appendix C, section C.1.

Impacts and Mitigation

Water quality impacts will result primarily from installation of piles required to support the new wood plank deck and to hold the float in place, as well as from placement of additional fill (up to 1,884 cy) in Bay waters. Construction activities would be performed from barges, and would not require dredging.

Elevated suspended sediment concentrations associated with pile installation would create a short-term surface turbidity plume near the equipment that would decrease the amount of light transmittance, and degrade water clarity. Following completion of pile installation, the suspended sediment/turbidity plume would disperse within hours due to mixing, dilution, and settling of solids in the water column (USACE et al. 1998). Dispersion of suspended sediments and surface turbidity plumes would also be restricted by placing a silt curtain around the pile equipment. Therefore, as installation of the temporary terminal would be confined to the immediate construction area at future Gate C, and changes to water quality would only occur during the duration of construction (8 to 9 months), impacts to water quality would be negligible.

Impacts resulting from the placement of additional fill in Bay waters associated with installation of support piles and the wood plank deck would be temporary, and due to the small quantity of overall fill (1,884 cy) required for construction, impacts to water quality would be negligible.

As designs are preliminary at this time, BART will continue to coordinate and consult with applicable regulatory agencies regarding appropriate engineering design and the placement of fill associated with the temporary terminal.

Noise

Existing Setting

Noise sensitive "commercial use" receptors in the project vicinity include the World Trade Club, Ferry Building Marketplace tenants, outdoor seating areas behind the Ferry Building, Pier 1 offices and restaurants, ferry passenger queuing areas for the North and South Terminals, and other outside public access areas. Noise levels in this area are expected to range from 59 to 60 dBA L_{eq} with maximum noise levels reaching 68 dBA. Certain uses would be located a minimum of 40 feet away (e.g., outdoor seating areas behind the Ferry Building, North Terminal), while the majority would be 200 feet or more away (e.g., Pier 1, Agricultural Building, South Terminal, Sinbad's

Restaurant, Farmer's Market). Other nearby sensitive noise receptors including residential areas and hotels along the Embarcadero would be well over 200 feet away, and would experience only minimal short term increases in noise levels.

Impacts and Mitigation

The primary source of noise associated with construction of the temporary ferry terminal is installation of support piles for the temporary wood plank deck. There would also be noise generated from construction of the covered passenger area. The nearby temporary terminal support facilities, including the terminal supervisor's office, employee lunch/break and janitor room(s), and the mechanics shop would be housed in trailers, and would not generate excessive noise levels as no ground disturbance or construction would be required.

Installation of the piles would be completed with rotating or oscillating equipment, except where difficult soil conditions are experienced. Hourly noise levels generated by rotating or oscillating pile installation equipment are expected to be a maximum of 85 to 90 dBA L_{eq} at a reference of 50 feet; this noise level exceeds BART guideline limits for exposure at the nearest sensitive receptor to the construction activity. Although unlikely, if conventional impact pile driving equipment is required, noise levels would cause a substantial disturbance to persons within exterior public areas, and inside restaurants and offices. Maximum noise levels would exceed BART limits.

Project noise reduction measures described in section 2.2.1 will be implemented during construction of the temporary ferry terminal at future Gate C. As was successfully implemented for the Ferry Building renovation, these measures would ensure noise levels would be maintained within BART limits, and impacts to nearby sensitive receptors would be avoided or reduced.

Ground Transportation

Existing Setting

The proposed temporary terminal would not affect existing roads, traffic operations, parking in the vicinity of the Ferry Building and Ferry Plaza Platform, or other transit and bicycle facilities available behind the Ferry Building. This analysis focuses on pedestrian circulation only.

Construction activity would occur at future Gate C, behind the Ferry Building. The primary pedestrian portion of this area includes dedicated queuing areas for ferry passengers at Gate B (Bay Link and Blue & Gold Fleet ferry services), publicly accessibly benches and viewing areas, and outdoor restaurant seating areas associated with the Ferry Building Marketplace.

Impacts and Mitigation

Temporary pedestrian circulation impacts at the Ferry Building and Ferry Plaza Platform may occur as a result of Platform closures and from relocation of Golden Gate Ferry Terminal's covered waiting area to a more central location at the Ferry Building. The proposed temporary Terminal location would be closer to outdoor restaurant seating areas, and to the North Terminal (Bay Link, Blue & Gold Fleet) ferry passenger queuing areas.

Mitigation Measures. The following measures will be implemented to avoid substantial increases in delay for pedestrian movements resulting from temporary blocked access at or near the Ferry Building and ferry terminals.

- A designated queuing area for Golden Gate ferry passengers shall be provided inside of the covered, temporary Golden Gate Ferry Terminal waiting area at future Gate C.
- BART shall maintain a 40-foot wide pedestrian corridor behind the Ferry Building throughout construction of the temporary terminal and floating dock at future Gate C.
- BART will not redirect, block, or otherwise interfere, with current ferry passenger queuing areas associated with Bay Link, Blue & Gold Fleet, and City of Alameda ferry services at the North and South Terminals.

Visual Resources

Existing Setting

Visual Character. The Northeastern Waterfront, which includes the proposed temporary terminal site, is centrally located on San Francisco's downtown waterfront area, and is a popular scenic and recreational destination. The centerpiece of the Embarcadero waterfront is the Ferry Building at the terminus of Market Street. The Building establishes a strong visual link with that corridor and anchors the western edge of the Ferry Plaza Platform. The proposed future Gate C location is directly behind (on the eastern edge) of the Ferry Building, adjacent to outdoor restaurant seating areas, benches, and other public access corridors.

There are panoramic views eastward from the Ferry Building Marketplace and adjacent waterfront, including at the proposed deck site on future Gate C. These views encompass the following scenic resources: San Francisco Bay and associated ferry, barge, and boat traffic; open sky against Bay waters; Yerba Buena Island and Treasure Island; the western span of the Bay Bridge connecting San Francisco and Yerba Buena Island; and the distant Oakland-Berkeley Hills. In contrast, views toward San Francisco's waterfront and the Ferry Plaza Platform from the Bay as viewed by Bay Bridge motorists, ferry passengers, and boaters are dominated by the City of San Francisco skyline in the background. As viewed from the Bay, the waterfront is set against a backdrop of mid-rise and high-rise hotels and office buildings of the Financial District and the city's downtown.

Visual Quality. The juxtaposition of dramatic, natural landscape features (the panoramic Bay, wooded Yerba Buena Island, and Marin Headlands) and built features (Bay Bridge, Ferry Building Marketplace, San Francisco waterfront, and a portion of Treasure Island) contribute to a highly vivid setting viewed from waterfront, Bay Bridge, and waterborne vantage points. The Ferry Plaza and surrounding waterfront are moderately visually intact as they are visually distinct from their surroundings (e.g., the adjacent waterfront). The Ferry Plaza Platform houses a number of unrelated and visually distinct uses including the Ferry Building Marketplace, the ferry terminals, the World Trade Club and San Francisco Transition Structure, surface parking, pedestrian access, sightseeing, and fishing. Similarly, the project setting exhibits low visual unity that is the result of a visually heterogeneous mix of independent, unrelated development and activities.

Viewing Audience. The landside viewing audience for the proposed Temporary Golden Gate Terminal at future Gate C includes patrons of the Ferry Building Marketplace utilizing outdoor spaces and restaurant seating, ferry passengers waiting at Gates B and E, and pedestrians and sightseers in public access areas behind the Ferry Building. Waterside viewers include motorists on the Bay Bridge and ferry and boat passengers in the Bay.

Light and Glare. The urban nature of the Ferry Building and Ferry Plaza Platform generates uniformly high nighttime light levels throughout the proposed temporary terminal site. Although the proposed location is currently undeveloped, it is indirectly illuminated by lights from the Ferry Building.

Impacts and Mitigation

Visual Character and Quality. Construction (8 to 9 months) of the temporary Golden Gate Ferry Terminal at future Gate C and the placement of temporary support trailers during staging of construction equipment and supplies nearby would detract from the existing degree of intactness within the vicinity of the Ferry Building and Ferry Plaza Platform. Construction of ferry terminal facilities from this new location would disrupt the visual unity among the already disparate buildings and structures on the Ferry Plaza. However, construction effects would be temporary, and both the future Gate C site and the nearby temporary terminal support area would be restored to pre-project conditions following completion of retrofits proposed at the Platform associated with the San Francisco Transition Structure. Therefore, impacts on visual quality would be negligible.

The temporary operation of the terminal (2 to 3 years) would introduce new active ferry uses and facilities at the future Gate C site. However, the proposed ferry terminal would be consistent with the existing active ferry terminal setting, and would not detract or disrupt the visual unity of the area. Implementation of the temporary terminal would not affect the broader scenic setting.

Viewing Audience. With respect to the viewing audience, the future Gate C site serves as only one of numerous locations along the waterfront that offers viewing opportunities to area visitors. The temporary use of this site for relocated Golden Gate ferry operations is offset by the viewing opportunities available along the length of the Embarcadero and on other nearby piers. In addition, new mitigation proposed to reduce impacts associated with the temporary loss of public access area (see Social Impacts, above) will provide information signs leading visitors to these other nearby publicly-accessible scenic destinations, thereby providing a link between important waterfront visual resources.

Construction and operation of the temporary terminal would not permanently block views from the Ferry Building Marketplace or from other vantage points available along the length of the Embarcadero or inland of the waterfront (e.g., high rise buildings), where views of the Bay would remain available to visitors. However, during the approximately 2- to 3-year period during which the temporary terminal and uses would be introduced to the future Gate C area, nearby visitors and patrons would experience restricted views towards the water due to the presence of the new deck and facilities. BART will continue to coordinate with the Golden Gate District and other affected agencies to ensure final designs of the temporary terminal minimize

overall blockage of views through the use of appropriate construction materials (e.g., clear windows and coverings) and other design measures (e.g., reduced height).

For these reasons, new development and the presence of construction equipment and ferry activities would result in minor impacts on views from the Ferry Building Marketplace. No impacts are expected on other landside and waterside viewers in the project area because of their distance from the project site.

Light and Glare. Project construction could result in the temporary use of high-intensity light sources to illuminate construction activities in low light conditions (e.g., overcast days or nighttime shifts, if applicable). In addition, for security and nighttime operations, it is expected that the temporary terminal would include new light sources. The following mitigation measure is intended to confine light spillover and prevent increases in focused, intense off-site glare.

Mitigation Measure. The following measure will be implemented during construction and operation of the temporary terminal at future Gate C to avoid impacts from offsite light and glare.

- Construction and operations light sources that could result in glare generation shall be directed away and downward from nearby uses, focused on the work areas, and shielded, as needed, so as not to cause light spillover or focused, intense off-site glare.

Consequently, the temporary terminal would have negligible impacts on ambient nighttime light levels or glare generation.

Implementation of the proposed project design and mitigation is expected to ensure that visual impacts remain less than substantial. Nevertheless, BART will continue to consult with the Port and other affected entities during the final design to refine the implementation of these measures, in order to further minimize any unanticipated impacts.

2.3 OTHER REVISIONS

As a result of BART-initiated project changes removing or refining several retrofit techniques analyzed in the EA, or in response to comments received, the following revisions are made to other sections of the EA, as described below.

2.3.1 Consultation and Coordination

On EA page 5-2, the California Endangered Species Act (CESA) regulatory authority is revised as follows.

California Endangered Species Act (CESA) permit authority is pursuant to Fish and Game Code Section 2081(b) (Incidental Take Permit) and/or Section 2080.1 (Consistency Determination), if a state-listed species would be adversely affected. There are several state-listed species that may occur in, or migrate through, the project area. These state-listed species are also federally-listed species.

Under the Consistency Determination process prescribed in Section 2080.1, an applicant that has obtained a Federal Incidental Take Statement pursuant to federal Endangered Species Act (ESA) Section 7 consultation or a Section 10(a) Incidental Take Permit, may notify the CDFG Director in writing that an Incidental Take Statement or Incidental Take Permit has been received pursuant to the federal ESA. The applicant must also submit the federal Incidental Take Statement or Permit to the CDFG Director for a determination whether the federal document is consistent with CESA. Receipt of the application by the Director starts a 30-day clock for processing the Consistency Determination. In order for CDFG to issue a Consistency Determination, CDFG must determine that the conditions specified in the federal document are consistent with CESA. If they are not consistent, the applicant must apply for a State Incidental Take Permit pursuant to Fish and Game Code Section 2081(b).

BART will consult with CDFG to determine the appropriate regulatory action required for the proposed project.

2.3.2 Appendix A, Dredged Material Disposal Scenario

Due to project changes eliminating certain retrofit techniques requiring dredging, including stitching the Tube, piles and collar anchorage, and the Isolation Walls Retrofit Concept, the total volume of dredged material has been reduced considerably compared to the maximum amount analyzed in the EA. Removal of the stitching technique also negates the applicability of dredged material reuse within the project described in EA section A.1, and section A.2.3.

Based on the revised project dredged material volume (5,000 cy), as well as the proposed use of a smaller dump scow barge to accommodate commercial vessel traffic in the area and to limit barge work areas, four barge trips (each with 1,500 cy of capacity) would be required for offsite transport to any of the eight offsite reuse/disposal sites analyzed in the EA. Since most of the reuse/disposal sites would require 2 days for a complete round-trip, the duration of the barge trips could last for about 8 days if they were to consecutively occur.

2.3.3 Appendix C, Regulatory Environment

The EA on page C-3 discusses the McAteer-Petris Act administered by the San Francisco Bay Conservation and Development Commission (BCDC). To further clarify the regulatory environment, line 12 is revised as follows: In addition, BCDC has jurisdiction over all areas formerly subject to tidal action that have been filled since September 17, 1965, and the 30.5-meter (100-foot) wide shoreline band surrounding the Bay from the mean high tide line (MHTL).

The EA on page C-12 discusses the Marine Mammal Protection Act. To further clarify the regulatory environment, the Act's legal definition of "take" and "harassment" has been added. Take is defined under this Act as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. Harassment is defined under this Act as any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal in the wild, or has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

3.0 RESPONSES TO WRITTEN COMMENTS ON THE EA

This section includes responses to those written comments received during the 30-day public review period of the EA. Where responses have resulted in changes to the text of the EA, these changes also appear in Section 2.0 of this revised EA. A copy of each letter is provided, and responses to each comment immediately follow.

3.1 AGENCIES AND ORGANIZATIONS COMMENTING IN WRITING

The following table presents a list of agencies and organizations that submitted written comments on the EA during the 30-day public review period (August 28, 2005, through September 27, 2005).

Public Comments Received on the EA

Letter Code	*Date*	*Individual*	*Organization*
Federal Agencies			
A	9/28/05	Rodney McInnis	National Oceanographic and Atmospheric Administration (NOAA) National Marine Fisheries Services
State Agencies			
B	9/23/05	Robert W. Floerke	California Department of Fish and Game
C	9/28/05	Michelle Burt Levenson	San Francisco Bay Conservation and Development Commission
D	9/29/05	Terry Roberts	California State Clearinghouse
Local Agencies			
E	9/26/05	William Kirkpatrick	East Bay Municipal Utility District
F	9/27/05	Celia Kupersmith	Golden Gate Bridge, Highway and Transportation District
G	9/28/05	Roberta L. Reinstein	Port of Oakland
H	9/28/05	Steve Castleberry	Water Transit Authority
I	9/30/05	Byron Rhett	Port of San Francisco
J	10/13/05	Ernest Sanchez	City of Alameda
Organizations			
K	9/28/05	Laurence Young	Chan, Doi & Leal, LLP, on behalf of Ferry Plaza Limited Partnership and World Trade Club
L	9/28/05	Jane Connors	Ferry Building, Equity Office

Additional comment letters on the project were received from the following three parties after the close of the 30-day comment period:

1. Center for Urban Education about Sustainable Agriculture (CUESA), December 8, 2005
2. Golden Gate Bridge Highway and Transportation District, December 14, 2005
3. World Trade Club, December 20, 2005

To adhere to the project schedule for completing the environmental document, formal responses to their comments are not included in the EA. However, BART has assured each party that their comments will be addressed in writing and with further consultation as needed.

3.2 PERSONS COMMENTING AT THE PUBLIC HEARING

BART, in cooperation with Caltrans and FHWA, conducted a public open forum hearing held at the Joseph B. Bort Metrocenter on Wednesday, September 14, 2005, to provide the public and responsible agencies an opportunity to comment on the EA. No one in attendance provided formal testimony or written submittals. Thus, responses to comments at the public hearing on the EA are not required.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

In Reply, Refer to:
151405SWR2005PR00708:MLD

SEP 28 2005

Janie Layton
BART Environmental Compliance
P.O. Box 12688, Mail Stop LKS-18
Oakland, California 94604-2688

Dear Ms. Layton,

This letter is in response to your request for NOAA's National Marine Fisheries Service (NMFS) to review the Bay Area Rapid Transit District (BART) Seismic Retrofit Project Environmental Assessment (EA), dated August 2005. The San Francisco BART, in cooperation with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), propose to seismically strengthen a portion of the BART system between Berkeley Hills Tunnel in Oakland, to the Montgomery Street Station, in San Francisco. The project will retrofit several facilities, one of which is the Transbay tube, the portion of the BART system located beneath San Francisco Bay. Proposed seismic retrofits of the Transbay tube include either micropile anchorage, or vibro-replacement, or stitching, or installing a tunnel sleeve at one of the seismic joints. The EA indicates that measurements shall be taken of noise levels generated by impact hammer and oscillation equipment during a pile installation demonstration that will be completed before construction begins. The project would require approximately 6 years to complete. A-1

NMFS is concerned that sounds introduced into the sea by man-made devices could have a deleterious effect on marine mammals by causing stress, interfering with communication and predator/prey detection, and changing behavior. More significantly, acoustic overexposure to loud sounds can lead to a temporary or permanent loss of hearing (termed a temporary (TTS) or permanent (PTS) threshold shift). NMFS is currently in the process of determining safety criteria for marine species exposed to underwater sound. Based on past projects involving pile-driving, consultations with experts, and on published studies, we have preliminarily determined that pinnipeds can be safely exposed to impulse sound pressure levels not greater than 190 decibels referenced to 1 microPascal root mean square (dB re 1 μPaRMS). However, marine mammals have shown behavioral changes when exposed to impulse sound pressure levels of 160 dB re 1 μPa_{RMS}. A-2

Pacific harbor seals (*Phoca vitulina richardsi*), California sea lions (*Zalophus californianus*), gray whales (*Eschrichtius robustus*), and the harbor porpoise (*Phocoena phocoena*) commonly occur in the San Francisco Bay area. Harbor seals are present in the San Francisco Bay area year-round and use it for foraging and reproduction. The three closest harbor seal haul out sites to the proposed BART project are at Yerba Buena Island, Angel Island, and Castro Rocks. An important harbor seal haul out site is located on a rocky beach on the southwest side of Yerba A-3

Buena Island. California sea lions have been observed on a regular basis in the shipping channel to the south of Yerba Buena Island. Gray whales have been sighted more frequently in recent years and although the harbor porpoise is found in high densities just offshore and within San Francisco Bay, the harbor porpoise is not expected to be abundant in the proposed project area.

A-3

All marine mammals are protected under the Marine Mammal Protection Act (MMPA). Under the MMPA, it is illegal to "take" a marine mammal without prior authorization from NOAA Fisheries. "Take" is defined as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. "Harassment" is defined as any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal in the wild, or has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

A-4

A demonstration project, similar to the one described in this EA, was conducted by Caltrans for the San Francisco-Oakland Bay Bridge (SF-OBB) seismic retrofit project. On November 22, 1999. NMFS received an application from the FHWA on behalf of Caltrans, requesting an Incidental Harassment Authorization (IHA) for the possible harassment of small numbers of harbor seals and California sea lions incidental to conducting a pile installation demonstration project (PIDP) at the SF-OBB. NMFS issued an IHA permit to Caltrans for the PIDP and then issued an IHA permit for the seismic retrofit construction for the SF-OBB project. The SF-OBB overlaps the area of the Transbay tube section of the BART, adjacent to Yerba Buena Island.

A-5

Pile driving noise and human activity associated with the proposed project could impact marine mammals swimming in the project vicinity or hauled out at nearby areas. Based on the information provided in the EA and the location of the proposed project, it may be necessary to receive authorization from NMFS for this proposed project.

A-6

We appreciate your efforts to comply with Federal regulations and to conserve and protect marine mammals. Please contact Monica DeAngelis at 562-980-3232 or Monica.DeAngelis@noaa.gov if you have any questions concerning this letter or if you require additional information.

Sincerely,

for Rodney McInnis
Regional Administrator

Rodney McInnis, NOAA National Marine Fisheries Service, September 28, 2005

A-1. Comment noted.

A-2. Comment noted. The underwater noise criteria used to assess impacts of the proposed project on pinnipeds and marine mammals in the EA (page 3.9-10, line 12) is consistent with the impulse sound pressure levels identified in this comment.

A-3. The EA beginning on page 3.9-3, line 14, provides identical background information on these marine mammals, including Pacific harbor seals, California sea lions, gray whales, and the harbor porpoise, which is consistent with this comment.

A-4. The EA has been revised to include the legal definitions of "take" and "harassment" identified in this letter (see revised EA section 2.3.3).

A-5. The EA (page 3.9-15, line 28) states that based on the results of recent, Bay Area Bridge retrofit noise demonstrations, including the SF-OBB Seismic Retrofit Project identified by National Marine Fisheries Service (NMFS), the proposed project would be expected to impact marine mammals and fish during pile driving. Accordingly, the EA (page 3.9-16, line 20) identifies mitigation measures to avoid impacts, including conducting noise monitoring during a pile installation pilot demonstration prior to project construction, and obtaining authorization from NMFS.

Based on further design review, BART estimates that 6 of the 116 piles associated with the Pile Array may require installation with an impact hammer. The remaining piles would be installed with oscillating or rotating techniques that produce minimal noise or vibration effects. The tubular sheet piles associated with the containment structures would be installed using hydraulic push methods, which would also result in minimal noise or vibration impacts. In consultation with NOAA/NMFS pursuant to federal ESA Section 7 and the Magnuson-Stevens Act, BART has agreed to implement restrictions to avoid impacts to listed salmonid species during seasonal migrations, and will not conduct any pile driving or dredging activities outside of the work window (June 1 to November 30). See also revised EA section 2.2.5.

A-6. BART, in cooperation with Caltrans and FHWA, will work with NMFS to obtain the required project authorizations to ensure compliance with Federal regulations.

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State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

September 23, 2005

Ms. Janie Layton
BART Environmental Compliance
Post Office Box 12688, Mail Stop LKS-18
Oakland, CA 94604-2688

Dear Ms. Layton:

Environmental Assessment
BART Seismic Retrofit Project (Earthquake Safety Program)
Berkeley Hills Tunnel to Montgomery Street Station

Department of Fish and Game (DFG) staff has reviewed the subject document. Page 5-2, starting at line 34, incorrectly cites the California Endangered Species Act (CESA) permit authority as "PRC Section 2080.1." Incidental take of State threatened, endangered, or candidate species by a project must be handled through a CESA Incidental Take Permit or Consistency Determination process addressed in Fish and Game Code Section 2081(b) and Section 2080.1, respectively. B-1

In addition, page 5-3 lines 1-10, states that according to Section 2080.1(c), if a Federal Incidental Take Statement is obtained and the species is also threatened or endangered pursuant to CESA, no further authorization or approval is necessary provided the recipient notifies the Director and includes a copy of the Federal Incidental Take Statement with the notification. Section 2080.1 allows an applicant who has obtained a Federal Incidental Take Statement pursuant to a Federal Section 7 consultation or a Federal Section 10(a) Incidental Take Permit to notify the Director in writing that the applicant has been issued an Incidental Take Statement or an Incidental Take Permit pursuant to the Federal Endangered Species Act of 1973. The applicant must submit the Federal Incidental Take Statement or Permit to the DFG Director for a determination as to whether the Federal document is "consistent" with CESA. Receipt of the application by the Director starts a 30-day clock for processing the Consistency Determination. In order for DFG to issue a Consistency Determination, DFG must determine that the conditions specified in the Federal Incidental Take Statement or the Federal Incidental Take Permit are consistent with CESA. If DFG determines that the Federal Incidental Statement/Permit is not consistent with CESA, the applicant must apply for a State Incidental Take Permit under Section 2081(b) of the Fish and Game Code. B-2

B-3 The exception provided in Fish and Game Code Section 2080.1 to CESA's take prohibition can be used only for species that are listed under both Federal Endangered Species Act and CESA, and cannot be applied to species that are listed by the State but not Federally listed.

Section 2081(b) permits are usually preferable to 2080.1 Consistency Determinations for the reasons listed below. Under a Consistency Determination:

- DFG cannot add any conditions to the Federal Incidental Take Statement/Permit or biological opinion to meet the full mitigation standard, and must accept it as is, when determining if it is consistent with CESA,
- Often the biological opinion does not contain enough details describing mitigation measures,
- B-4 The Federal standard for including plants is jeopardy,
- If pertinent sections of the Endangered Species Act change, a Consistency Determination could become invalid, and we would have to issue 2081(b) incidental take permits for those projects.

More information can be found on the DFG website at http://www.dfg.ca.gov/hcpb/cegacesa/cesa/cesa.shtml.

If you have questions or comments, please contact Ms. Marcia Grefsrud, Environmental Scientist, at (707) 944-5559; or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,

for Robert W. Floerke
Regional Manager
Central Coast Region

Robert W. Floerke, California Department of Fish and Game, September 23, 2005

B-1. The EA has been modified to add the following: "California Endangered Species Act (CESA) permit authority is pursuant to Fish and Game Code Section 2081(b) (Incidental Take Permit) and/or Section 2080.1 (Consistency Determination), if a state-listed species would be adversely affected." See revised EA section 2.3.1.

B-2. The EA has been revised to clarify the CESA Consistency Determination process addressed in Fish and Game Code Section 2080.1 (see revised EA section 2.3.1). BART, in cooperation with Caltrans, will ensure compliance with CESA for proposed project actions affecting state-listed species, and will work with CDFG to obtain the required authorizations, whether this is determined to be a CESA Incidental Take Permit (Fish and Game Code Section 2081[b]), or a Consistency Determination (Section 2080.1).

B-3. The EA has been revised to indicate that all state-listed species potentially occurring in the project vicinity are also federally-listed species (see revised EA section 2.3.1); therefore, Section 2080.1 is applicable.

B-4. BART, in cooperation with Caltrans, will ensure project compliance with CESA, and will determine through further consultation with CDFG the proper permitting vehicle for the proposed project.

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bcdc

Making San Francisco Bay Better

September 28, 2005

Ms. Janie Layton
Bay Area Rapid Transit District (BART)
300 Lakeside Drive, 18th Floor
Oakland, California 94612

SUBJECT: Environmental Assessment (EA) for the BART Seismic Retrofit Project (Earthquake Safety Program), Berkeley Hills, Tunnel to the Montgomery Street Station, State Clearinghouse Number 2005082116

Dear Ms. Layton:

On August 30, 2005, San Francisco Bay Conservation and Development Commission staff received the Environmental Assessment (EA) for the BART Seismic Retrofit Project (Earthquake Safety Program), from the Berkeley Hills Tunnel to the Montgomery Street Station, proposed in Alameda County and the City and County of San Francisco. The project involves a comprehensive seismic retrofit program of several BART facilities including the Transbay Tube, the San Francisco Transition Structure, the aerial guideways that carry the BART tracks between the western portal of the Berkeley Hills Tunnel to the Oakland Transition Structure, the Rockridge Station, the MacArthur Station and the West Oakland Station. C-1

The Commission's staff has reviewed the EA and is submitting its comments regarding the document. Although the Commission itself has not reviewed the EA, the staff comments are based on the McAteer-Petris Act, the Commission's *San Francisco Bay Plan* (Bay Plan), the Commission's federally-approved management program for the San Francisco Bay, and the federal Coastal Zone Management Act (CZMA).

Jurisdiction

The Commission's jurisdiction includes all tidal areas of the Bay up to the line of mean high tide (the inland edge of marsh vegetation in marshlands), all areas formerly subject to tidal action that have been filled since September 17, 1965, and the "shoreline band," which extends 100 feet inland from and parallel to the Bay shoreline. C-2

Commission permits are required for certain activities, including construction, changes of use, dredging, and dredged material disposal, within its area of jurisdiction. Permits are issued if the Commission finds the activities to be consistent with the McAteer-Petris Act and the policies and findings of the Bay Plan. In addition to any needed permits under its state authority, federal actions, permits, and grants that affect the Commission's jurisdiction are subject to consistency review by the Commission, pursuant to the federal Coastal Zone C-3

Management Act (CZMA), for their consistency with the Commission's federally-approved management program for the Bay. Portions of the project, specifically those activities proposed
C-3 along the Transbay Tube, the San Francisco Transition Structure and activities at the Transition Structure in the City of Oakland, appear to be within the Commission's jurisdiction, therefore these project activities would require Commission authorization.

Ferry Plaza Platform

The EA states that either a marine-based operation or a plaza-based operation would be used to conduct retrofit activities. If the marine-based option is employed, an approximately
C-4 70,000-square-foot portion of the Ferry Plaza platform that currently supports pedestrian viewing and Golden Gate Ferry terminal activities would be removed and Golden Gate Ferry Terminal operations would be temporarily relocated. If the plaza-based operation is employed, approximately 65,000 square feet of the existing platform would be removed and Golden Gate Ferry terminal activities would be maintained throughout construction activities.

A large portion of the Ferry Plaza Platform that would be removed is dedicated as public access under BCDC Permit No's. 1-00 and 10-73. Additionally, it would appear that retrofit activities would result in closures to dedicated public access areas on portions of the platform that would not need to be removed and that adjoining public access areas to the Ferry Building would be adversely impacted due to construction activities. In order to assess the potential public access impacts associated with the project, the EA should describe the areas that would
C-5 be unavailable for public access use during construction activities (including those portions of the plaza that would remain closed due to safety concerns) and the anticipated duration of public access closures. It is likely that alternative public access areas and routes, or other mitigation for public access impacts would be required to offset impacts associated with public access closures on the Plaza Platform. Such mitigation for the long-term, temporal loss of public access areas may include providing public access enhancements either at the Ferry Plaza when the seismic work is completed or elsewhere along the San Francisco Waterfront.

More information should be provided in the EA regarding the relocation of the Golden Gate Ferry Terminal if the marine-based operation is used to construct the seismic improvements. Table 3.4-7 in the EA describes potential measures if the ferry terminal needs to be relocated (e.g., utilizing a ferry berth at Pier 27 and Pacific Bell Park, adjusting ferry schedules and building a new float at Pier 1/2). The EA should provide more information and expand upon the potential ferry terminal relocation options and should include an analyses of potential
C-6 impacts associated with terminal relocation. Potential impacts associated with terminal relocation may include construction impacts (e.g., dredging, pile driving and other construction-related activities potentially affecting aquatic species), visual impacts and public access impacts, in particular those associated with queuing ferry passengers in dedicated public access areas. Additionally, the EA should analyze the potential effects associated with permanently relocating the Ferry Platform should the Commission determine that the entire platform be reserved for public access as mitigation for the public access impacts of the project.

Impacts on Bay Resources

The Bay Plan contains several policies that are relevant to the proposed project. Such policies include the following:

C-7

1. "...Fish, Other Aquatic Organisms and Wildlife...give appropriate consideration to the recommendations of the California Department of Fish and Game, the National Marine Fisheries Service or the United States Fish and Wildlife Service in order to avoid possible adverse effects of a proposed project on fish, other aquatic organisms and wildlife habitat...";

2. "...Dredging...Dredging should be authorized when the Commission can find: (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose, such as navigational safety; (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal restrictions established by the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service, or through other appropriate measures; (d) the siting and design of the project will result in the minimum dredging volume necessary for the project..."; and

3. "...Mitigation... Projects should be designed to avoid adverse environmental impacts to Bay natural resources such as to water surface area, volume, or circulation and to plants, fish, other aquatic organisms and wildlife habitat, subtidal areas, or tidal marshes or tidal flats. Whenever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable. Finally, measures to compensate for unavoidable adverse impacts to the natural resources of the Bay should be required. Mitigation is not a substitute for meeting the other requirements of the McAteer-Petris Act...."

C-7

The EA describes several different construction methods that may be employed to conduct seismic retrofit activities. Selection of final construction methods will be based on on-going feasibility testing and effectiveness. Depending on the construction methods selected, between 152,300 to 221,100 cubic yards of material would be dredged from the Bay, covering an eight-acre area and up to 2,512 to 2,598 pilings would be installed. Construction activities proposed in the Commission's jurisdiction could potentially occur over a four-year period.

C-8

The EA describes several mitigation measures that would be implemented to reduce potential impacts to Bay resources. Such mitigation measures include conducting a pilot study to assess the effects of pile driving noise on aquatic species, installing a bubble curtain during pile driving activities and using biological monitors during herring spawning season (December 1 through February 28). Once a final construction method is selected, the staff will be more informed and better able to advise the project proponents on additional appropriate mitigation requirements. However, based on the information provided in the EA it appears that additional time restrictions on in-Bay construction activities to protect listed salmonid species and mitigation to offset the impacts associated with the placement of Bay fill may be required. The EA should evaluate the impacts of such restrictions on construction timing.

C-9

Engineering Criteria Review Board

The Bay Plan policies on safety of fills state that, "...The Commission has appointed the Engineering Criteria Review Board consisting of geologists, civil engineers specializing in geotechnical and coastal engineering, structural engineers, and architects competent to and adequately-empowered to: (a) establish and revise safety criteria for Bay fills and structures thereon; (b) review all except minor projects for the adequacy of their specific safety provisions, and make recommendations concerning these provisions; (c) prescribe an inspection system to assure placement of fill according to approved designs... and (f) gather, and make available performance data developed from specific projects...". To ensure that the proposed project would be constructed consistent with the Bay Plan policies on fill in the Bay, review of the

C-10

C-10 project by the Commission's Engineering Criteria Review Board (ECRB) would likely be required. Once a final construction method has been selected, the staff will be able to schedule a project review by the ECRB.

C-11 It is our understanding that the project proponents have provided the Dredged Material Management Office (DMMO) with an initial review of the project. The staff encourages the project proponents to continue to work with the DMMO to determine the appropriate pollutant testing standards and disposal options for the project.

C-12 Thank you for providing staff with the opportunity to review the Environmental Assessment for the proposed project. We recognize the importance of this project and are looking forward to working with your staff to develop the final document and any subsequent permit application materials. Please feel free to contact me at (415) 352-3659, or email me at michellel@bcdc.ca.gov if you should have questions regarding this letter, the ECRB or the Commission's policies and permitting process.

Sincerely,

MICHELLE BURT LEVENSON
Permit Analyst

MBL/mbl

cc: Ms. Kari Kilstrom, Port of San Francisco
Mr. Dennis Mulligan, Golden Gate Bridge Highway and Transportation District
Mr. George Lu, Bay Corporation and Ferry Plaza Limited Partnership

Michelle Burt Levenson, San Francisco Bay Conservation and Development Commission, September 28, 2005

C-1. Comment noted.

C-2. As stated in the EA on page C-3, lines 6-14 (summarized), BCDC has jurisdiction over all areas of the Bay that are subject to tidal action up to the line of mean high tide, and the shoreline band, which is consistent with this comment. However, the EA has been revised to indicate BCDC's jurisdiction also covers all areas formerly subject to tidal action that have been filled since September 17, 1965 (see revised EA section 2.3.3).

C-3. As stated in the EA (see Chapter 5 and Appendix C), a BCDC permit and a Coastal Zone Management Act (CZMA) Federal Consistency Determination are required for the proposed project, which is consistent with this comment.

C-4. Based on further design review, the plaza-based construction operation, in which construction equipment would be placed directly on top of the Platform, will be implemented. Removal of up to 59,000 sf of total Platform area will be needed to accommodate equipment and construction, although the maximum Platform area that would be restricted from public use during any of the construction phases would be 39,000 sf. The proposed construction phases at the Platform are described in revised EA section 2.1.2 and depicted on Figures 2 through 7. Additionally, BART proposes to temporarily relocate the Golden Gate Ferry Terminal to future Gate C to ensure continual ferry operations throughout the duration of construction in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. §4601 *et seq.*), as applicable. Details of the conceptual temporary terminal are discussed in revised EA section 2.2.3, and on Figure 8.

C-5. The comment suggests that alternative public access areas and routes or other mitigation are necessary to offset impacts of public access closures on the Platform. Dedicated public access areas within or adjacent to the project area include approximately 58,000 sf composed of the BART platform, east promenade, two east-west pass-through corridors, and restrooms (BCDC Permit No. 1-00); and approximately 19,232 sf along the northern, southern and eastern sides of the World Trade Club (BCDC Permit No. 10-73). "Public access" values relating to the Platform include access to views of waters of the San Francisco Bay and shoreline, and physical access to dedicated areas of the Platform itself. Existing public use of the Platform includes waiting for ferries by ferry passengers; loading and unloading activities at the Golden Gate Ferry Terminal; freight unloading into the Ferry Building; vehicular ingress to and egress from the World Trade Club and for maintenance workers and vehicles; and the Farmers Market two days per week. (See Port of San Francisco, *Phased Public Access Plan and Program for Ferry Platform Area* (Draft August 1, 2005), pages 3-4.) However, although pedestrians traverse the Platform, it is hidden from public view behind the Ferry Building and generally is not a destination (*Id.*, page 4.) Furthermore, according to the *Phased Public Access Plan* (page 1), much of the existing seating in the Ferry Plaza area remains underutilized. Accordingly, the existing conditions of public access should not be overstated. Nevertheless, the temporary closure of public access areas is recognized as an impact, and the proposed

project design and mitigation have been modified to minimize this impact as discussed below.

To address public access issues, BART has conducted further design review of proposed retrofit techniques at the Ferry Plaza Platform. Based on subsequent technical analysis, BART has eliminated the marine-based construction option (Construction Method 1) as a feasible retrofit technique. Accordingly, the plaza-based construction method (Construction Method 2), in which construction equipment would be placed directly on top of the Platform, will be implemented as part of the proposed project. Use of the plaza-based construction method will affect some of the areas designated for public access pursuant to Permit Nos. 1-00 and 10-73, including temporary closures of portions of the area along the north side of the Ferry Plaza Platform, and temporary preclusion of access to the existing Golden Gate Ferry Terminal. To maximize public access to these dedicated public areas during project construction, BART has modified the construction program to proceed in up to six phases, ensuring that portions of the Platform remain publicly accessible throughout the duration of construction activities. Phased construction at the Ferry Plaza Platform will require reconstruction of the removed portions of the Platform prior to commencement of subsequent construction phases. The EA has been revised to identify those portions of the Platform area that would be restricted and the uses and tenants affected (see revised EA section 2.1.2, Figures 2 through 7, and section 2.2.7). The total platform area is 108,000 sf, and the total maximum area of the Platform to be removed and replaced is approximately 59,000 sf. However, the maximum Platform area that would be restricted from physical public access during any of the construction phases would be 39,000 sf, which represents approximately half of the currently accessible area (80,000 sf).

During these temporary physical closures, the public will have uninterrupted visual access to waters of the Bay from adjoining and other vantage points along the waterfront. In addition, the following new mitigation measures (summarized) have been added in the EA to offset impacts associated with temporary public access closures at the Platform (see revised EA section 2.2.7):

- Temporary relocation of the Farmers Market area, including operational, staging, and parking areas to a nearby publicly-accessible area, as well as replacement at the Platform following project completion;
- Provision of information signs leading visitors to other nearby publicly-accessible scenic destinations along the waterfront; and
- Installation of an interpretive display/kiosk explaining the project's history in the context of recent seismic upgrades completed in the Downtown Waterfront District.

Additionally, the EA has been revised to describe the temporary relocation and reconstruction of the Golden Gate Ferry Terminal at the Platform; see revised EA section 2.2.3 and responses to Comment Letter F (Golden Gate Bridge, Highway and Transportation District) and Comment Letter I (Port of San Francisco). As provided in the revised description, temporary ferry facilities and entrance(s) to the World Trade Club on the Platform will be maintained throughout the six construction phases.

Furthermore, a 40-foot wide corridor located at the rear of the Ferry Building will be provided to ensure continuous access for ferry riders and general public throughout the project construction period (see revised EA section 2.2.3, Ground Transportation).

The comment expresses specific concerns regarding (1) the proposed removal of a portion of Ferry Plaza Platform that has been designated as "public access" under BCDC Permits No. 1-00 and 10-73; (2) closure of dedicated public access areas on portions of the platform that do not need to be removed (including portions that would remain closed due to safety concerns); and (3) construction-related impacts on adjoining public access areas to the Ferry Building. Regarding the first two points, those portions of the Platform that would be removed temporarily and those portions that would be closed (although they do not need to be removed) are shown in the revised EA, Figures 2 through 7. No additional areas on the Platform would need to be closed due to safety concerns. Regarding the third point, adjoining public access to the Ferry Building will not be adversely impacted by construction, and access will be maintained through the 40-foot wide corridor described above. During construction of the temporary Golden Gate Ferry Terminal deck, however, a narrow strip (about 5-feet wide) along the Promenade would require temporary closure to provide a buffer between the public during pile installation, as well as construction of connections from the Promenade to the fixed deck. The closure would occur for a few weeks, and only during work hours.

With the phased construction program, temporary ferry passenger facilities and the availability of public access for viewing and seating in nearby areas, the project will not have substantial adverse effects on public access. Subsequent to reconstruction of Golden Gate District's Ferry Plaza Terminal based on plans resulting from further consultation among BART, Caltrans, FHWA, the Golden Gate District, and other responsible agencies (e.g., Port of San Francisco, and BCDC), BART will be responsible for the removal and disposal of all temporary facilities. These measures are sufficient to mitigate impacts on dedicated public access to a less than substantial level during the term of retrofit activities; existing access conditions will be fully replaced at the conclusion of construction. Accordingly, no post-construction mitigation would be necessary or appropriate.

C-6. Based on further design analysis, the marine-based construction option (Construction Method 1) has been eliminated from further consideration. Therefore, no further analysis relating to this option is necessary. Impact analysis associated with relocation of the Golden Gate Ferry Terminal under the plaza-based construction option is discussed in the revised EA, sections 2.2.1 through 2.2.8.

The project description and mitigation measures described above provide for resumption of Golden Gate Ferry service at its current location at the conclusion of the project. As noted above, the mitigation measures in the revised EA are sufficient to mitigate impacts on dedicated public access to a less than substantial level during the term of retrofit activities; existing access conditions will be fully replaced at the conclusion of construction. Accordingly, permanent relocation of the Golden Gate Ferry Terminal would not be necessary or appropriate as mitigation for project impacts. Subsequent to completion of the EA, it is possible that the Port of San Francisco and the

Golden Gate District may decide to redesign and permanently relocate the Golden Gate Ferry Terminal to an as-yet undetermined location. At the present time, that possibility is too speculative for analysis in this document. Environmental review of any permanent relocation plans subsequently developed by the Port and the Golden Gate District would be the responsibility of those agencies. In the event that the Port and the Golden Gate District complete the necessary environmental review and receive funding for such relocation, BART will coordinate with them to avoid duplication of efforts to restore full access to Golden Gate Ferry berths.

C-7. Comment noted.

C-8. Based on further design analysis, the following seismic retrofit techniques have been determined technically infeasible and/or ineffective, and therefore, will not be implemented as part of the project: stitching the Tube; piles and collar anchorage; and the Isolation Wall Retrofit Concept. Elimination of these retrofits reduces the total project dredge volume to 5,000 cy, as dredging would only be required for installation of the containment structures. As a result, the overall construction period is expected to be completed in 2 to 3 years (see revised EA sections 2.1.3 and 2.1.4 for additional details).

C-9. FHWA, on behalf of BART and Caltrans, initiated formal consultation with NOAA Fisheries/NMFS and CDFG pursuant to federal ESA Section 7 (regarding impacts on marine mammals and fish) and the Magnuson-Stevens Act (regarding impacts on Essential Fish Habitat). BART agreed to NOAA's recommendation to limit in-Bay pile driving and dredging activities to within NOAA's approved work window (June 1 – November 30) to avoid impacts to listed salmonid species. Please see revised EA section 2.2.5 for additional details.

As BART has determined the pile array and containment structures will be implemented at the San Francisco Transition Structure, the total estimated project fill has also been reduced to a maximum of 5,000 cy (see Section 2.1.3). BART, in cooperation with Caltrans and FHWA, will work with BCDC to develop appropriate measures related to Bay fill to ensure compliance with applicable Bay Plan regulations.

C-10. BART, in cooperation with Caltrans and FHWA, will continue to work with BCDC to schedule any required project reviews, including the Engineering Criteria Review, and to implement appropriate measures related to Bay fill to ensure compliance with the applicable Bay Plan regulations.

C-11. BART will continue to work with the DMMO to ensure project dredged material is handled according to applicable regulations.

C-12. Comment noted.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

September 29, 2005

Janie Layton
Bay Area Rapid Transit District
300 Lakeside Drive, 18th Floor
Oakland, CA 94612

Subject: BART Seismic Retrofit Project (Earthquake Safety Program) - Berkeley Hills Tunnel to the Montgomery Street Station
SCH#: 2005082116

Dear Janie Layton:

The State Clearinghouse submitted the above named Environmental Assessment to selected state agencies for review. The review period closed on September 28, 2005, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

D-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2005082116
Project Title BART Seismic Retrofit Project (Earthquake Safety Program) - Berkeley Hills Tunnel to the Montgomery Street Station
Lead Agency Bay Area Rapid Transit District

Type EA Environmental Assessment

Description BART is conducting a comprehensive seismic retrofit program of its system in anticipation of a potential future major earthquake. The project area is located in the cities of Oakland and San Francisco, California. There would be no increase in capacity (number of BART trains or ridership) as a result of the seismic retrofit, and substantial changes in BART service are not expected to result during or as a result of the retrofit.

Lead Agency Contact

Name Janie Layton
Agency Bay Area Rapid Transit District
Phone (510) 874-7423 **Fax**
email
Address 300 Lakeside Drive, 18th Floor
City Oakland **State** CA **Zip** 94612

Project Location

County Alameda, Contra Costa, San Francisco
City Oakland, San Francisco
Region
Cross Streets
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways SR 24, I-880
Airports
Railways UPRR, Amtrak
Waterways San Francisco Bay, Temescal Creek
Schools Rockridge ES
Land Use Transportation Facility

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Coastal Zone; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Landuse; Noise; Public Services; Recreation/Parks; Social; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 2; Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Office of Emergency Services; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Conservation; California Highway Patrol; Caltrans, District 4; Department of Boating and Waterways; San Francisco Bay Conservation and Development Commission; State Lands Commission

Date Received 08/29/2005 **Start of Review** 08/29/2005 **End of Review** 09/28/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.

1 **Terry Roberts, California State Clearinghouse, September 29, 2005**

2 **D-1.** Comment noted.

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EAST BAY
MUNICIPAL UTILITY DISTRICT

September 26, 2005

Janie Layton, Manager of Environmental Compliance
BART Environmental Compliance
P.O. Box 12688, Mail Stop LKS-18
Oakland, CA 94604-2688

Re: Environmental Assessment – BART Seismic Retrofit Project (Earthquake Safety Program) – Berkeley Hills Tunnel to Montgomery Street Station

Dear Ms. Layton:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the BART Seismic Retrofit Project (Earthquake Safety Program) – Berkeley Hills Tunnel to Montgomery Street Station. EBMUD has no comments regarding environmental issues this project. E-1

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning, at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:JLM:sb
sb05_271.doc

1 **William Kirkpatrick, East Bay Municipal Utility District, September 26, 2005**

2 **E-1.** Comment noted.

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September 27, 2005

Via e-mail and DHL

GOLDEN GATE BRIDGE
HIGHWAY & TRANSPORTATION DISTRICT

Janie Layton
BART Environmental Compliance
P.O. Box 12688, Mail Stop LKS-18
Oakland, CA 94604-2688

Re: **Environmental Assessment BART Seismic Retrofit Project (Earthquake Safety Program) – Berkeley Hills Tunnel to Montgomery Street Station**

Dear Ms. Layton:

The Golden Gate Bridge, Highway and Transportation District (District) wishes to thank the San Francisco Bay Area Rapid Transit District (BART) for the opportunity to review the Environmental Assessment (EA) for the BART Seismic Retrofit Project – Berkeley Hills Tunnel to the Montgomery Street Station (BART Retrofit). The District supports BART in its efforts to seismically strengthen its system, but notes that BART must thoroughly examine and mitigate the impacts the BART Retrofit will have on the District's ferry operations and facilities, as more fully described in this letter. F-1

Introduction

The District's comments are limited in scope to those components of the project that are in proximity to our ferry operations and the Stephen C. Leonoudakis Ferry Terminal (Ferry Terminal) in San Francisco. Fundamentally, the purpose of the EA is to determine whether the proposed action has the potential to significantly affect the quality of the human environment. Although the EA, as currently proffered, indicates that the BART Retrofit will significantly impact the District's ferry operations in and around the Ferry Terminal, it does not adequately describe or address the requisite mitigation, including the temporary relocation of the District's ferry facilities and operations that will be required to accommodate the BART Retrofit. While this relocation may be temporary, it is expected to last at least 3 to 12 months, potentially longer, and would significantly impact the District's ferry operations if not properly mitigated. F-2

Since the impacts of the BART retrofit upon the District's ferry operations and facilities, including the relocation of the Ferry Terminal operations, are not adequately described, the EA does not begin to address the specific mitigating steps necessary to avoid significant impacts. As a result, the EA fails to fulfill its fundamental purpose of determining whether the impacts of the BART Retrofit are significant or not. While the District is optimistic that the impacts of the BART Retrofit can be adequately mitigated, the absence of information in the EA concerning the impacts on District's ferry operations leaves the District no choice but to request that BART and FHWA delay issuing a Finding of No Significant Impact (FONSI) until the agencies have had the opportunity to adequately explore the issues raised in this letter. The District requests that BART and FHWA promptly commence discussions with the District to develop tangible and specific mitigation measures that will address the impacts of the BART Retrofit on the District's ferry operations. F-3

Discussion of Impacts

F-4 The EA clearly reassures BART riders regarding the impacts of the BART Retrofit, stating: "No disruption to BART service is anticipated during any retrofit method associated with the Transbay Tube" on page 2-2, line 27. Nowhere does the EA make an explicit statement reassuring the thousands of transit users that rely on our ferry service daily that there will be no disruption to ferry operations during the entire construction period for the BART Retrofit. In fact, the EA, on page 3.4-31, expressly states that construction work will preclude the use of some of the vessel infrastructure and that this impact "would disrupt ferry service for approximately 5,500 daily ferry passengers," and page 3.7-4 states that construction "would require the closure of two ferry berths, and ferries and ferry riders would be detoured to areas outside the actual construction area."

F-5 The District is the largest public ferry operator in California. The District has a duty to protect the public investment that has resulted in such a successful enterprise, which originally started in the 1970s with a significant investment of federal funds. There are two facets to this investment: the investment in the physical infrastructure and the investment in growing and developing a loyal ridership. Any disruption has real impacts on both facets of the prior investments to this public transit service. Any disruption that results in a reduction in the quality of the service will result in a decline in ferry ridership with a corresponding increase in automobile traffic with its various impacts (e.g. congestion and air quality).

F-6 All evidence indicates that BART will, at a minimum, disrupt and more likely demolish all of the Bridge District's physical infrastructure at the Ferry Terminal. Figure 2-10 from the EA indicates that the *Pile Array* will completely demolish our existing facilities. Later page 3.4-31 states: "Construction work would preclude the use of some of the vessel infrastructure at the Ferry Terminal."

F-7 Page 3.4-31 of the EA states that the impacts to the vessel transportation "will be prevented with implementation of the measures described in Table 3.4-7." However, the mitigating measures set forth in Table 3.4-7 are either entirely inadequate or are insufficiently described to assure that the negative impacts will be prevented. To avoid significant impacts caused by the disruption to the District's ferry operations and the associated damages, BART must demonstrate that during each phase of construction BART will ensure that replacement ferry facilities are provided that include all of the capabilities, amenities and appurtenances that currently exist. Similarly, if the BART Retrofit necessitates the demolition and replacement of our existing facility, then the EA should acknowledge the obligation to construct a "functional replacement" of this publicly owned facility consistent with Federal Highway Administration right-of-way procedures.

We describe below important characteristics of the District's ferry facilities and operations that exist today at the Ferry Terminal that are not adequately evaluated in the EA.

F-8 1. **Two Operational Berths.** The Bridge District's facilities at the Ferry Terminal include two berths that allow for the simultaneous loading and unloading of two ferries. Both berths are used simultaneously today to serve the District's Larkspur and Sausalito service. These berths, coupled with staging areas for paid passengers and wide ramps and wide walkways, provide for the rapid loading and unloading of passengers. This results in highly efficient

service wherein a ferry offloads and loads passengers with a five-minute turnaround time at the dock. If the BART Retrofit construction results in a reduction in this efficiency, it would require an additional ferry boat and an additional crew to maintain our current schedule of service. The EA does not offer sufficient detail to ascertain whether the BART Retrofit will have such an impact, nor does it commit to the requisite mitigation, which would require BART to pay for the additional boat and crew. If the BART Retrofit includes such a relocation of the District's ferry facilities, then this question and the resulting commitment needs to be addressed before, during and after the temporary relocation. F-8

2. **Integrated Security System**. The District has a layered, integrated security system in place at the Ferry Terminal that includes, among other things, perimeter access control and surveillance (closed-circuit television cameras that are connected to our continuously manned security center at the Bridge). Additionally, the District is currently participating in a pilot project with the Department of Homeland Security (DHS) wherein ferry passengers are screened for explosives prior to boarding ferries. In the event of a heightened level of security (e.g., MARSEC Level 2) the District has the ability to fully respond to the heightened concerns. It is of the utmost importance that this functionality be maintained at all times during each phase of the BART Retrofit construction. The interruption of these safeguards has potentially significant impacts. The EA does not address how BART will ensure that the integrated security system will remain fully intact and operational during all phases of the BART Retrofit. F-9

3. **Passenger Amenities**. The District offers a suite of amenities to our ferry customers such as a heated, covered passenger waiting area; clean, convenient available restrooms; and well-staffed opportune passenger ticketing. These amenities not only enable the District to provide efficient and safe ferry service in a secure environment, but also contribute to the quality of our service, which is essential for maintaining current ridership levels. Once again, this functionality must be maintained at all times during each phase of the BART Retrofit construction. The absence of these amenities would result in a loss of ferry ridership with a corresponding increase in vehicular traffic and associated impacts. Any loss of ridership corresponds to a loss in passenger fares. This lost ridership cannot be assumed to return upon the completion of construction, so the ridership loss could translate into longer-term economic damages and environmental impacts. F-10

4. **Ferry Service Support Facilities**. The District's facilities at the Ferry Terminal also include amenities for our employees (e.g., restrooms and space for employee breaks), as well as communications, storage and maintenance areas and an industrial ice machine to replenish the ice supplies on the boats. The District's facilities also incorporate an emergency power generator that provides sufficient electrical power to run all of the Bridge District's operations at this location. All of these ferry service support facilities are essential to the District's existing ferry operations and must be provided for at all times during each phase of the BART Retrofit construction. The EA does not address how each of these ferry service support facilities will be provided during each phase of the BART Retrofit, including during any temporary relocation of the Ferry Terminal. F-11

F-12 The District acknowledges that BART is extremely important to the overall transportation system in the region. Protecting BART from an earthquake is vitally important. In that same vein, in the event of an earthquake prior to the completion of the BART Retrofit construction, the existing ferry facilities will be the backbone for lifeline transportation service. This further heightens the importance of maintaining complete ferry facilities with, at a minimum, the ability to provide the same level and speed of ferry service that exists today during each phase of the BART Retrofit. Specifically, it is crucial to replicate the current passenger loading capacities at each berth during all times, including any temporary relocation of the ferry facilities.

F-13 The BART Retrofit construction at the San Francisco Ferry Terminal appears to necessitate the relocation of most, if not all, of our ongoing enterprise in order to construct the contemplated seismic enhancements. As a result, the temporary relocation of these facilities is an integral part of the BART Retrofit and must be addressed in the EA and contemplated in the resulting decision. Similarly, if the BART Retrofit necessitates the complete replacement of the Bridge District's ferry facility, then the functional replacement is also an integral part of the BART Retrofit and the impacts of that replacement should be thoroughly evaluated in the EA, along with any mitigation measures required for such impacts.

F-14 The EA states that the District's ferry operations and facilities must be relocated for at least 3 to 12 months during the BART Retrofit. But the EA only superficially, and without supplying any of the important details, mentions how these critical facilities will be relocated. For example, the EA identifies as mitigation measures that a new float will be built at Pier ½ and that schedules can be adjusted to accommodate the use of mono-hull vessels when BART removes Berth 2 from service. There is no discussion, however, about how the new float will be constructed, where the covered passenger waiting area will be located, how the integrated security system will be installed at the new berth, or where the other passenger amenities and ferry service support facilities will be located so that the District does not lose significant ridership or increase the security risk for its ferry operations during all phases of the BART Retrofit. NEPA requires that mitigation measures be "tangible and specific," so all of these critical issues must be addressed in the EA. Further, the relocation description fails to recognize that the District's Larkspur service is provided by two catamaran vessels. Because catamaran vessels are faster than mono-hull vessels, any relocation scheme that involves the use of mono-hull vessels for Larkspur service will require an additional vessel and crew to maintain the current schedule.

Attached are more specific, detailed comments regarding particular provisions of the EA.

Lack of Consultation

F-15 Section 5.0 of the EA acknowledges that BART consulted with the City of Alameda and the City of Vallejo, two ferry operators that provide service near, but not to, the Ferry Plaza where the BART Retrofit will take place, and with the San Francisco Bay Area Water Transit Authority and the Port of San Francisco, neither of which provides ferry transit service at this time. Yet it does not indicate that BART consulted with the one ferry operator whose operations are most affected by the BART Retrofit – Golden Gate Ferry. While the EA does not acknowledge it, BART did meet briefly with the District in early 2003. That meeting focused on BART's need for a right of entry permit to do testing for its preliminary engineering effort. However, we did

not discuss in any substantive fashion the details of our ferry operations and facilities. Significantly, BART did not provide any level of detail regarding the necessary relocation of our ferry operations arising from the BART Retrofit, nor did BART explore the potential impacts to our riders and the environment potentially associated with this facet of the BART Retrofit. As a result of this lack of consultation, the EA is unable to adequately analyze the impact of the BART Retrofit on the District's ferry operations. We look forward to having the opportunity to rectify this omission, since more recently BART has commenced the consultation process with renewed vigor. Through this consultation we can hopefully reach agreement regarding the requisite mitigations so that the BART Retrofit avoids significant impacts. It is unfortunate that this consultation did not occur prior to BART's release of the EA. F-15

Conclusion

Nevertheless, the Bridge District looks forward to working cooperatively with BART and other stakeholders to bring this essential project to fruition and completion in an expeditious fashion. With greater clarity regarding the impacts of the project, along with a description of the mitigating steps, we are hopeful that all of the Bridge District's concerns can be addressed.

Sincerely,

Dennis Mulligan

for Celia Kupersmith
General Manager

Attachment

cc: JoAnn Cullom, Caltrans
Gene Fong, FHWA
Will Travis, BCDC
Kari Kilstrom, The Port of San Francisco
Steve Castleberry, Water Transit Authority
Steve Heminger, MTC
4.4.4

Attachment

F-16
- Figure 2-3 is a schematic that depicts a plan view on top and a section view on the bottom. The section view includes "Wire Lines to Anchor" at a rather steep slope. Is this depiction correct? Typically barges place anchors such that the angle of the lines is much flatter, so that the barge can be positioned using the anchor lines, resulting in the anchor lines extending a considerable distance away from the barge. This is germane, because the anchor lines may interfere with ferries in the vicinity of the Ferry Terminal. The plan view at the top of the exhibit does not depict the anchor lines. It would appropriate to show the anchor lines in plan view to provide the necessary detail to determine whether there is likely to be an impact.

F-17
- Figure 2-5 does not depict the "barge work area" for the stitching location closest to the BART Transition Structure. This graphic should depict the specified "barge work area" with the potentially greatest impact to ferry operations to allow an evaluation of the potential impacts.

F-18
- Page 2-14, line 17 states "..to the extent feasible." This leaves open the possibility BART will use an impact hammer to install piles. Does the EA address the environmental impacts (e.g. noise impacts to ferry users and sound pressure waves in the water column) associated with using an impact hammer?

F-19
- Page 2-14, line 29 uses the term "near." This term needs to be defined (e.g. within 2,000 feet or with two feet) in order to determine whether significant impacts will result.

F-20
- Page 2-16, line 2 refers to a 350 feet by 350 feet "barge work area" limit. Elsewhere the EA (page 2-48, line 34) discloses the use of 3,500 yard dump scows for dredging. Such a barge is typically about 250 feet long and 75 feet wide. In light of this, is the 350 feet by 350 feet barge work area realistic?

F-21
- Page 2-16, line 3 uses the term "may". This vague wording leaves open the opportunity for the barge work area to impact vessel traffic, since the anchor lines are an obstruction to navigation. At the Ferry Terminal this may have significant impacts on ferry operations. Anchor plans in the vicinity of the Ferry Terminal that may impact passenger ferries should be disclosed in the EA.

F-22
- Page 2-23, the first paragraph (lines 1-7) discusses constructing temporary sheet piling around the construction area. What are the limits of the sheet piling? Will the sheet piling be installed around the entire perimeter of the plaza? Will the sheet piling affect the District's ferry berths and ramps? Will the sheet piling preclude the use of the District's hydraulic ramps? The EA refers to "using oscillation or rotating techniques"; will the sheet piling be vibrated or driven into position?

F-23
- The location of the sheet piling is not reflected on Figure 2-10.

F-24
- Page 2-23, the second paragraph discusses noise impacts in a very general sense, without adequate detail to determine impacts. According to the EA, conventional pile driving may be allowed during periods of ferry service, which may have significant impacts on ferry ridership. How close will conventional pile driving be to ferry patrons? This is important information that should be disclosed and contemplated in the decision making, particularly if

there is a desire to avoid significant impacts. According to page 3.2-6, lines 32-37 the average noise levels at the Ferry Plaza range from 59 to 60 dBA. Elsewhere the EA discloses that pile driving noise can be 110 dBA at fifty feet. Since each 10 dBA increase in sound level is perceived as approximately a doubling of loudness, a 50 dBA increase is a significant increase in noise. The EA does not adequately describe the proposed mitigation to this increase. F-24

- Page 2-23, the third paragraph (lines 16-19) mentions that any hardscape or landscape will be "replaced in kind after project completion." Is this a reference to the District's Ferry Terminal? If so, it should be more explicitly stated. The Federal Highway Administration has procedures for the "functional replacement" of publicly owned facilities. Is it BART's intent to comply with this federal requirement? F-25

- Page 2-24, the second paragraph states: "...and ferry terminal activities would be temporarily removed in the areas of the new pile array..." Nowhere in the EA is there a discussion of the extent of the removal, the impacts associated with the removal or the proposed mitigation. [This deficiency needs to be corrected.] F-26

- Page 2-24, the third paragraph (lines 29 & 30) states: "Access to and from the landing dock for the Golden Gate Ferries would also be maintained." It is not clear what is meant by "access." Does "access" refer to the same covered, secured passenger waiting areas along with wide walkways leading to the boats? If less convenient access is contemplated, how long would that occur and how inconvenient would it be? It is anticipated that less convenient access will result in a loss of ferry ridership with its associated impacts. F-27

- Figure 2-10 depicts the pile array. It appears to impact all facets of the District's ongoing ferry operations. The impacts associated with the pile array on our ferry operations needs to be detailed in the EA along with all mitigating steps that BART will implement to avoid significant impacts. F-28

- Page 2-29, the first paragraph mentions dredging at the Ferry Plaza Platform and refers to Figure 12-2. Elsewhere the EA (page 2-48, line 34) refers to 3,500 yard barges. The "supply barge" shown on figure 2-12 is less than half this size (3,500 yard barge dimensions), which is misleading. Figure 2-12 should reflect the size of the vessel that is referred to elsewhere in the EA. This exhibit understates the likely impacts. F-29

- Page 2-48 discusses dredging. Will BART restrict dredging activities to non-ferry service hours of operations in order to avoid impacting ferry patrons? F-30

- Page 3.0-1, lines 26-36 state that Land Use, Utility Service Systems and Energy are not addressed in the EA, since there are no impacts. If BART does not fully mitigate impacts to the District's ferry facilities and operations then this is not correct. Our ferry customer base is not transit dependent. Any reduction in ferry ridership directly correlates to an increase in automobile traffic. An increase in automobile traffic impacts land use and energy consumption. F-31

F-32
- Table 3.2-2 is entitled *Typical Construction Equipment Noise Emission Levels*. This table is misleading, since it states that the noise levels for typical impact pile drivers is 101 dBA at fifty feet. The BART project contemplates 6 foot diameter steel piles that are over 150 feet long. These are not typical piles. Later on page 3.2-8 line 16 it is disclosed that 110 dBA at 50 feet can be expected. This is almost a ten fold increase in the noise level highlighted in the table.

F-33
- Page 3.2-9, lines 3 and 4 state: "The nearest receptors that could be subject to pile driver noise would be located 150 to 200 feet from the barge mounted equipment." This statement is in direct conflict with Figure 2-10 that shows pile locations ten times closer to ferry patrons than the "150 to 200 feet". Which is correct?

F-34
- Page 3.2-9, lines 15 and 16 refer to a "hotline for noise complaints." What is the purpose of the "hotline"? Will the hotline merely maintain a record of numerous noise complaints or will the "hotline" respond and impose financial penalties on BART's Retrofit contractor for violating contractually specified noise levels?

F-35
- Will BART contractually specify, maximum noise levels at the location of and during those hours that ferry operations are underway? If not, then how will BART guarantee that they will avoid impacts associated with the noise of construction activities?

F-36
- Page 3.2-10, lines 8 and 9 state: "pile driving will be scheduled to avoid high public use times of the Ferry Plaza". Does the definition of "high public use times" include all of the hours of ferry operations or simply commute hours?

F-37
- The EA needs to clearly disclose whether BART will allow pile driving during the hours of ferry operations, and it needs to disclose how close this pile driving will be to ferry passenger areas (access to the ferry terminal, paid waiting areas, boarding ramps, etc). If ferry patrons experience 110 dBA it is a significant impact.

F-38
- Page 3.4-31, lines 21-26 state: "This impact would disrupt ferry service for approximately 5,500 ferry patrons." This is a significant impact that is not described fully with the appropriate level of detail.

F-39
- Page 3.4-31 lines 27-29 state that mitigation measures are described in Table 3.4-7. Both the discussion on page 3.4-31 and Table 3.4-7 do not adequately discuss the impacts of the project. As presented, in the absence of further detail regarding the description of the existing facilities and the details of the proposed mitigation, the impacts are significant.

F-40
- Table 3.4-7, references communications with *N. Demsey* in 2003 regarding potential changes to Golden Gate Ferry operations. Mr. Demsey is not and has never been employed with the District. He is an employee of the Port of San Francisco. More importantly, as BART has been previously informed, while the District's commute ferry service from Larkspur involved mono-hull vessels in 2003, it is now provided exclusively by high speed catamarans. This table does not reflect this change that occurred in July 2004.

- Table 3.4-7 discusses utilizing the ferry berth at SBC (the EA refers to it as Pacific Bell Park) and the ferry berth at Pier 27. These are unacceptable alternatives for a temporary relocation of the District's ferry operations and facilities. These sites are too remote to our ferry patrons' origins and destinations. This would result in a precipitous drop in ferry ridership with a resulting increase in automobile traffic. F-41

- Table 3.4-7 refers to relocating one of the District's berths while it appears the intent is for the District to continue to utilize one of our existing two berths. There is no mention in the EA of the additional personnel, costs and passenger inconvenience associated with operating from two locations. This is a significant omission. How will passenger safety, security and the various existing infrastructure (e.g. closed circuit television security cameras, communications, electrical power including connection to the emergency generator) be addressed? F-42

- The United States Coast Guard Vessel Traffic Service (VTS), Harbor Safety Committee and the ferry operators have been discussing new and revised protocols with respect to the arrival and departure routes at the ferry plaza. How will barge traffic and construction activities affect this ongoing safety effort? F-43

- Table 3.4-7 refers to building "a new float at Pier ½". The EA incorrectly uses the term "float" interchangeably with "ferry terminal". A float is not the same as a ferry terminal. A ferry terminal includes numerous functions such as ticketing; restrooms; covered, heated passenger waiting areas; security; etc. F-44

- Table 3.4-7 refers to changing the arrival and departure times for the District's ferries by 20 minutes. This would result in inefficiencies that would necessitate the use of an additional boat and crew in order to maintain the current level of ferry service. F-45

- Page 3.4-33, lines 10-25 place some restrictions on barge movements (yet not anchoring limits). In the absence of a plan showing the limits of anchor lines for these barges, it is premature to declare that the barges will have no impact on vessel transportation. F-46

- Page 3.7-1, lines 1 and 2 state: "This section evaluates safety issues during project construction, as well as the potential for construction to increase risks during upset events (such as earthquakes…". This evaluation is incomplete, in that it does not contemplate the need for ferries to provide lifeline transportation service in the event an earthquake disables BART prior to completion of the BART Retrofit. Additionally, the evaluation does not discuss whether the existing ferry service levels and capabilities will be maintained during each phase of the BART Retrofit construction. F-47

- Page 3.7-2, lines 7-17 addresses System Security. This section does not discuss impacts that the BART Retrofit construction may have on ferry security. BART does not disclose any actions that compromise the District's existing ferry security systems. BART should explicitly state that there will be no impacts or BART should disclose the impacts so that they are contemplated as part of an informed decision. Any action that compromises safety and security should be thoroughly vetted. F-48

- Page 3-7.4, lines 22-26 states:

  "At the San Francisco Ferry Building, large construction equipment would be close to the Transbay Tube and transition structure, and it would be necessary to remove large portions of the Ferry Plaza Platform. Construction would require the closure of two ferry berths, and ferries and ferry riders would be detoured to areas outside the active construction area"

F-49

In the absence of specifically described, tangible mitigation, this is a significant impact; and it will result in the temporary and permanent reduction in ferry ridership with an increase in automobile traffic with resulting congestion and air quality impacts. This statement is inconsistent with the sketchy information referenced in Table 3.4-7.

- Page 3.11-4, lines 36-39 states:

  "Construction activity at the San Francisco Transition Structure on the Ferry Plaza Platform would occur beyond the primary pedestrian portion of the Ferry Plaza Platform used by ferry passengers."

F-50

This is in direct conflict with the statement referenced above from page 3-7.4. They cannot both be correct. The EA contains a number of such conflicting statements.

- Page 3.11-5, lines 2-14 and page 3.11-7, lines 22-28 understate the impacts to public access, both ferry passengers and the general public, during the construction period. Each day thousands of people enjoy this area; the BART Retrofit will disrupt this enjoyment, for thousands of people each day, for a period of several years. The EA describes this impact as negligible. This characterization does not appear to be correct.

F-51

- Page 3.11-8, lines 22-27 highlight that berth 2 would be unavailable for at least three months to one year disrupting ferry service for 5,500 passengers. Without a tangible mitigation measure to replace the berth, this is a significant impact.

F-52

- Pages 33 and 34 of the *Vessel Transportation Technical Study* do not correctly describe the District's ferry service. The District's ferry service was modified in July 2004. The Larkspur to San Francisco weekday service is provided exclusively with two high speed vessels. The schedule is published three times a year. BART can also access this information via consultations with the District or via the web at:

  http://goldengate.org/schedules.php

F-53

- Page 4-19 describes Social Impacts and the cumulative social impacts. This section fails to consider the impact on the neighborhood due to changes in commute patterns and public access. Additionally, the EA does not contemplate the correct neighborhoods that would be impacted by an increase in automobile traffic arising from the BART Retrofit not adequately mitigating impacts to the District's ferry facilities and operations such that a decline in ferry ridership occurs.

F-54

- Pages 44 and 45 from the *Noise Technical Study* discusses measure that BART will take to reduce noise levels for BART patrons and employees at its stations (such as Rockridge). For example it states: "Prohibit construction equipment that does not meet the lower BART noise

F-55

emission limit (85 dBA at 50 feet)." This is repeated in the EA on page 3.2-11. The EA and the *Noise Technical Study* do not appear to provide the same assurance for ferry patrons. Is it BART's intent to provide a higher level of mitigation for its transit patrons and employees than that offered to our patrons and employees? The District strongly believes that same mitigation measures (e.g. prohibiting equipment that exceeds 85 dBA at 50 feet) should be provided to all transit users, both BART patrons and our ferry patrons. F-55

Celia Kupersmith, Golden Gate Bridge Highway and Transportation District, September 27, 2005

F-1. Revised EA section 2.2.3 describes updated mitigation measures proposed to minimize impacts to ferry operations at the San Francisco Ferry Plaza Platform, and to ensure continued operations throughout the duration of construction to avoid loss of ridership. Details of the temporarily relocated Golden Gate Ferry Terminal at future Gate C and reconstruction of the permanent facility at the Platform following project completion are provided in revised EA section 2.2.3, and shown on Figure 8. Impacts associated with implementation of the temporary terminal are discussed in revised EA section 2.2.8. See also Figures 2 through 7 for construction phasing details at the Platform.

F-2. Revised EA section 2.2.3 describes updated mitigation measures for minimizing impacts to ferry operations at the San Francisco Ferry Plaza Platform, including the proposed temporarily relocated Golden Gate Ferry Terminal. See also Figures 2 through 7 for construction phasing details at the Platform, and Figure 8 for the proposed, conceptual temporary Golden Gate Ferry Terminal.

F-3. BART, in cooperation with Caltrans and FHWA, has entered into active discussions on Principles of Agreement with the Golden Gate Bridge, Highway and Transportation District (Golden Gate District), and has met with both Golden Gate District and Port of San Francisco staff to review draft plans for the proposed temporary terminal at future Gate C. The resulting Principles of Agreement will address appropriate implementation of mitigation measures ensuring that functionally equivalent ferry operations and infrastructure are maintained throughout the extent of construction activities at the Ferry Plaza Platform, and temporary impacts from loss of ridership avoided.

F-4. BART intends to provide and maintain functionally equivalent ferry operations and infrastructure throughout the extent of construction activities at the Ferry Plaza Platform to avoid environmental impacts associated with loss of ridership resulting from temporary disruption of ferry service operations. Please see revised EA section 2.2.3 for additional information.

F-5. Revised EA section 2.2.3 describes proposed mitigation to temporarily relocate Golden Gate District's facilities, including a functionally equivalent covered terminal and dual-berth floating dock, to maintain ferry service and to avoid disruption of ferry operations. Implementation of this mitigation would avoid substantial decreases in ferry ridership, and environmental impacts associated with increased automobile use.

F-6. Revised EA section 2.1.2 describes the construction phasing plan at the Platform, which identifies demolition (and replacement) of the existing Golden Gate Ferry Terminal, and temporary relocation of Golden Gate District ferry operations to a terminal at future Gate C. Revised EA section 2.2.3 provides further discussion of the relocated terminal, and section 2.2.8 assesses potential impacts associated with implementation of the temporary terminal.

F-7. To address issues raised during the public comment period, EA section 3.4.2.1 (Vessel Transportation existing setting) has been updated to accurately characterize the facilities and operations in place at the San Francisco Ferry Building and vicinity (see revised EA section 2.2.3). In addition, EA Table 3.4-7 mitigation measures have been revised to ensure continued ferry operations throughout the duration of construction at the Platform to avoid environmental impacts associated with loss of ferry ridership, such as increased automobile traffic and corresponding air emissions. The full text and analysis of revised mitigation measures are described in revised EA section 2.2.3. Details of the construction phasing plan are identified in revised EA section 2.1.2, and shown on Figures 2 through 7.

In summary, BART will provide mitigation for impacts to the Golden Gate District's facilities at the Platform, to ensure that infrastructure and operations are provided at a functional equivalent to avoid impacts associated with loss of ridership. These include:

- Construction of a temporary Golden Gate Ferry Terminal at future Gate C (see Figure 8); and
- Redesign and in-place reconstruction of Golden Gate District facilities at the Platform.

Additional details regarding the conceptual design of the temporary Golden Gate Ferry Terminal at future Gate C are provided in revised EA section 2.2.3, and impacts associated with implementation of this mitigation are assessed in section 2.2.8. BART will continue to work with the Golden Gate District and other responsible agencies regarding the design and relocation of the temporary facilities at future Gate C, as well as the redesign and in-place reconstruction of Golden Gate District facilities at the Ferry Plaza Platform consistent with applicable regulations. All temporary and permanent replacement structures will be designed to provide the functional equivalent of the existing facilities, but will also be consistent with applicable current building and seismic code standards.

Proposed mitigation for impacts to other ferry operators providing service from the nearby South Terminal and North Terminal includes:

- Tying construction supply barges to northern and eastern end of Platform to avoid interfering with ferry operations, or providing advanced notification prior to any movement of supply barges; and,
- Making arrangements with the Port of San Francisco for access to the SBC Park ferry berth or Pier 27 ferry berth in case of unscheduled maintenance or emergency situations.

Mitigation requiring adjustment of ferry schedules is not expected to be required except on an occasional basis and with the concurrence of the ferry operator.

It should be noted, however, that the commenter has misstated the Federal Highway Administration right-of-way procedures regarding an "obligation to construct a functional replacement" of the Golden Gate District's facilities. Federal Highway Administration right-of-way procedures do not obligate the construction of functional

replacement facilities for temporary relocations. According to FHWA's *Real Estate Acquisition Guide For Local Public Agencies*, functional replacement as an alternative method of acquisition is a complex undertaking with limited applicability.[3]

F-8. Please see response to Comment F-7. Revised EA section 2.2.3 includes a discussion of the important characteristics of Golden Gate District's ferry facilities and operations that currently exist at the Platform, and provides revised vessel transportation mitigation measures. As described in revised EA section 2.2.3 and depicted on Figure 8, BART will provide a temporary, relocated Golden Gate Ferry terminal and dual-berth floating dock that includes functionally equivalent infrastructure, security, and amenities to maintain continued operations throughout the duration of project construction to avoid impacts associated with loss of ridership. Therefore, an additional ferry boat and crew is not expected to be required to maintain service.

F-9. Please see response to Comment F-7. The EA has been revised to clarify that BART will provide a comparable security system at the temporary Golden Gate Ferry Terminal that will remain in place throughout the duration of construction activities (see section 2.2.3).

F-10. Please see response to Comment F-7. The EA has been revised to clarify that BART will provide temporary passenger amenities functionally equivalent to existing Golden Gate Ferry Terminal infrastructure, including a covered passenger waiting area and walkway, restrooms, ticket booth, and other appropriate facilities to avoid impacts associated with loss of ridership (see section 2.2.3).

F-11. Please see response to Comment F-7. The EA has been revised to clarify that BART will provide temporary ferry service support facilities functionally equivalent to existing Golden Gate Ferry Terminal infrastructure, including a supervisor's office, employee lunch/break room with janitor room, a mechanics shop, and other appropriate facilities to avoid impacts associated with loss of ridership (see section 2.2.3).

F-12. Please see response to Comment F-7.

F-13. Please see response to Comment F-7. Proposed retrofit techniques at the San Francisco Ferry Plaza have been redesigned and mitigation measures clarified to ensure continued ferry terminal operations throughout the duration of construction. Impacts associated with the proposed temporary Golden Gate Ferry Terminal are discussed in section 2.2.8.

F-14. Please see response to Comments F-7 and F-8. Construction phasing at the Platform, including proposed construction and relocation of the Golden Gate ferry terminal to future Gate C, is depicted on Figures 2 through 7. Additional details of the relocated terminal are described in revised EA section 2.2.3, and are shown on Figure 8. EA Section 2.2.3 has also been revised to clarify that Golden Gate District's Larkspur ferry service is provided by two high-speed catamarans that can be accommodated at the proposed dual-berth floating dock. Therefore, an additional vessel and crew to maintain the current schedule would not be expected.

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[3] FHWA's definition of Function Replacement is available at: http://www.fhwa.dot.gov/realestate/lpaguide/ch6.htm.

F-15. Please see response to Comment F-3.

F-16. Additional details regarding vibro-replacement activities at the San Francisco end have been integrated into Figure 1, including the full extent of anchor wire rope lines and barge work area limits. Figure 1 demonstrates that the length and depth of the anchor lines would not interfere with ferry operations in the project vicinity. Furthermore, spud anchors would be used in lieu of anchor wire rope in water depths up to 50 feet to avoid interfering with ferry movement.

F-17. Based on further design analysis, BART has determined that stitching the Tube is not a viable retrofit technique for preventing longitudinal movement at the seismic joints. Therefore, potential impacts associated with stitching the Tube such as barge work area and anchor line interference will not occur. EA Figure 2-5 is therefore no longer applicable. Please see revised EA section 2.1.1 for additional details.

F-18. Based on further design analysis, BART has determined that stitching the Tube, as referenced in this comment, is not a viable retrofit technique and will not be implemented. Therefore, noise impacts associated with this retrofit technique will not occur.

However, pile installation is expected as part of other retrofit techniques. EA section 3.2.2.2 identifies environmental impacts and standard construction noise control measures to be implemented as part of the project to reduce noise levels on sensitive receptors located within 200 feet of the San Francisco Transition Structure. EA section 3.9.2.2 identifies environmental impacts and mitigation measures to reduce or avoid underwater noise impacts on fish and marine mammals.

Further design review indicates an estimated 6 of the total 116 steel pipe piles associated with Pile Array installation at the San Francisco Transition Structure may require use of a conventional impact hammer due to difficult soil conditions. The remainder of these piles would be installed by rotating or oscillating techniques that are not expected to produce noise levels or vibration in excess of BART construction control noise criteria. All tubular sheet piles associated with the Containment Structures would be installed using the hydraulic push method that would result in negligible noise levels. Therefore, potential noise impacts from conventional impact pile driving will be considerably less than previously described in EA section 3.2.2.2. Please see revised EA Section 2.2.1 for additional details.

F-19. In this context, the term "near" refers to all construction activities proposed at the San Francisco Ferry Plaza Platform that would occur within 200 feet of the San Francisco Transition Structure.

F-20. See response to Comment F-17. The barge size anticipated for storage and transportation of dredged material has been revised to 1,500 cy, as depicted in revised EA section 2.1.3 and depicted on Figures 2 through 8.

F-21. See response to Comment F-17. Construction supply and dredged material barges will be tied town to the northern and eastern ends of the Platform throughout the duration of

construction at the San Francisco Transition Structure to avoid interfering with ongoing ferry operations in the project vicinity. This is shown in Figures 2 through 8 and discussed in revised EA section 2.1.2.

F-22. Because Golden Gate District's existing facilities and support services would be relocated to a temporary ferry terminal at future Gate C, installation of temporary sheet piling would not preclude the use of any existing vessel infrastructure. Furthermore, as project design now indicates that project dredging activities will be limited to installation of the two containment structures (50 feet by 80 feet) located east and west of the San Francisco Transition Structure, temporary sheet piling will only be required at these two locations to limit turbidity impacts (see EA Figure 2-10). The temporary sheet piling will be installed using hydraulic push methods.

F-23. The temporary sheet piles are identified on EA Figures 2-10 and 2-11.

F-24. Please see response to Comment F-18. Use of an impact hammer may occur during ferry service hours of operation. However, the proposed, temporary Golden Gate Ferry Terminal at future Gate C would be located a minimum of 150 feet away from construction at the Platform. In addition, project noise reduction measures have been revised as described in revised EA section 2.2.1, and would ensure noise levels during all construction activities at the Platform will meet BART construction noise control criteria (described in EA Appendix C, Table C-1).

F-25. The hardscape or landscape materials discussed in EA section 2.2.2.1 do not include the Golden Gate Ferry Terminal. Furthermore, the referenced "functional replacement" requirement applies only to permanent displacements, as described in response to Comment F-7. Nevertheless, BART does intend to temporarily relocate and replace Golden Gate District's facilities as a result of project activities at the Platform, as described in revised EA section 2.2.3.

F-26. Please see response to Comment F-7. BART has refined vessel transportation mitigation measures to ensure continual ferry operations throughout the duration of construction. Additional details regarding the conceptual design of the temporary Golden Gate Ferry Terminal at future Gate C are provided in revised EA section 2.2.3, and impacts associated with implementation of this mitigation are assessed in section 2.2.8.

F-27. Please see response to Comment F-7. To ensure adequate access is provided for the Golden Gate District's ferry operations and a comparable level of service is maintained throughout construction to avoid loss of ridership, Golden Gate District's vessel infrastructure and support services will be relocated to a temporary, dual-berth ferry terminal as described in revised EA section 2.2.3. Impacts associated with implementation of this mitigation are assessed in section 2.2.8.

F-28. Please see response to Comment F-7. As a result of project retrofits at the Platform precluding access to vessel infrastructure, BART proposes to relocate the Golden Gate Ferry Terminal to a temporary terminal to ensure continual ferry operations throughout the duration of activities, as described in revised EA section 2.2.3. Impacts associated with implementation of this mitigation are assessed in section 2.2.8.

F-29. Based on further design review, the Piles and Collar Anchorage retrofit technique referenced in this comment will not be implemented. Revised EA Figures 2 through 8 depict the size (approximately 120 feet by 40 feet) and number of construction supply barges expected at the Platform during dredging and other construction activities. Barges would be tied off to the northern and eastern end of the Platform to avoid interfering with ferry operations. Impacts associated with dredged material storage and hauling of the approximately 5,000 cy of material associated with the containment structures are described in revised EA sections 2.1.3 and 2.2.3.

F-30. Based on further design review, Stitching the Tube and dredged material reuse within the project, which this comment references, will not be implemented. Therefore, impacts associated with these dredging activities will not occur.

Dredging activities associated with implementation of the containment structures at the San Francisco Transition Structure would, however, occur during ferry service hours of operation. Impacts and mitigations associated with dredged material storage and hauling of the approximately 5,000 cy of material associated with the containment structures are described in revised EA sections 2.1.3 and 2.2.3. As Golden Gate District's operations would be relocated to a temporary ferry terminal at future Gate C, outside of the active construction area, impacts of dredging on ferry patrons would be negligible.

F-31. Please see response to Comment F-7. Because ferry operations will be maintained throughout the duration of construction at the Platform, as described in revised EA section 2.2.3, loss in ridership resulting from disruption of ferry service operations is not expected. Therefore, increased automobile traffic as a result of the project that could result in greater air quality, land use, and energy impacts is not anticipated.

F-32. Revised EA Section 2.2.1 clarifies that proposed project piles are not typical, and as indicated in the EA (page 3.2-8, lines 13-18), noise levels generated by pile driving activities are expected to reach 110 dBA. This does not change the analysis or conclusions provided within the EA, which used the higher noise level to assess impacts.

F-33. Since Golden Gate Ferry operations would be temporarily relocated from the Platform to nearby future Gate C, as described in revised EA section 2.2.3, the distance of 150 to 200 feet is correct.

F-34. Revised EA Section 2.2.1 includes noise mitigation measures that were proposed for the San Francisco Downtown Ferry Terminal Project and successfully implemented during construction of the San Francisco Muni Project. Thus, BART will appoint a Disturbance Coordinator, who will have the authority to respond to complaints made either in person or by hotline, and will monitor the effectiveness of noise reduction measures to ensure construction noise is reduced to meet BART criteria.

F-35. Construction contracts will include specifications with which contractors must comply, including noise specifications, as well as procedures for responding with noncompliance. The Disturbance Coordinator will be responsible for monitoring and responding to noise complaints, and for maintaining proper installation of noise measures (e.g., noise barriers need to completely shroud the equipment), which will

reduce noise levels to within acceptable BART criteria levels (BART's maximum allowable limits for construction noise are identified in EA Appendix C, Table C-1). Please see Section 2.2.1 for additional details.

F-36. BART does intend to complete construction during ferry service hours of operation. Therefore, consistent with mitigation proposed for the Downtown San Francisco Ferry Terminal Project and implemented successfully during construction of the San Francisco Muni Project, "high public use times" is defined for this project as the lunch and dinner hours. Pile driving activities will be limited to between the hours of 7:00 A.M. and 12:00 noon, and between 1:30 P.M. and 3:30 P.M. to reduce the impact on the restaurant patrons and other people using the public outdoor and indoor spaces at the San Francisco Ferry Plaza.

Implementation of project noise reduction measures and temporary relocation of the Golden Gate Ferry Terminal to future Gate C, a minimum of 150 feet away (see Figure 8), would ensure noise levels experienced by ferry patrons and other nearby sensitive receptors meet BART's construction noise criteria levels throughout the duration of construction at the Platform. This would result in a negligible impact. Please see Section 2.2.1 for additional information.

F-37. Pile driving would occur during ferry service hours of operation, but will be limited to those hours described in response to Comment F-36.

F-38. Please see response to Comment F-7.

F-39. Please see response to Comment F-7.

F-40. Please see response to Comment F-7. Reference to Mr. Nic Dempsey, with the Port of San Francisco, is correctly identified in EA Chapter 7, References. Mr. Dempsey verified in February, 2003 that a ferry berth at SBC Park and/or Pier 27 could be made available for unscheduled maintenance.

Revised EA section 2.2.3 has been revised to accurately depict ferry services provided at the Ferry Building and Ferry Plaza Platform, including Golden Gate District's use of high speed catamarans for the Larkspur service.

F-41. The ferry berths at SBC Park and/or Pier 27 will only be used in the event of unscheduled maintenance or emergency situations; these berths will not be used for commuter services or as a relocation option for Golden Gate District facilities or operations.

F-42. Please see response to Comment F-7.

F-43. BART would be pleased to join discussions with the USCG Vessel Traffic Service, Harbor Safety Committee, and ferry operators to ensure that construction activities, including barge traffic, do not affect the ongoing safety effort. Project construction activities are not expected to interfere with potential new and revised protocols. In addition, mitigation proposed within EA section 3.4.2.2.2 requires BART to acquire an

Anchorage Waiver Permit from the USCG, which will facilitate further project coordination with the USCG.

F-44. Please see response to Comment F-7. BART proposes to construct a wood plank deck (with a continuous smooth surface to minimize trip and fall hazards) to accommodate a functionally equivalent terminal, as well as a dual-berth floating dock to ensure continual ferry operations throughout the duration of construction at the Platform.

F-45. Based on recent consultations with the Golden Gate District and other affected agencies (e.g., Port of San Francisco, BCDC, and WTA), the need to adjust ferry schedules is not expected. BART does not anticipate altering ferry service times to accommodate project construction, although ferry operators may determine that occasional time changes are warranted. The proposed relocation of Golden Gate District's existing facilities to a temporary ferry terminal at future Gate C, as well as tying off construction supply barges to the north and east ends of the Platform (see response to Comment F-7) would ensure continual ferry operations throughout the duration of construction at the Platform.

F-46. Based on further design review, stitching the Tube and dredged material reuse within the project, as referenced in this comment, will not be implemented. Please also see response to Comments F-17 and F-30.

F-47. Please see response to Comment F-7. Ferry service levels and capabilities will be maintained during each construction phase at the Ferry Plaza Platform. Therefore, the proposed project would not interfere with the ability of ferry operators to maintain service in the event of an emergency.

F-48. Please see response to Comment F-7. The EA has been revised to clarify that BART will provide a comparable security system at the temporary Golden Gate Ferry Terminal that will remain in place throughout the duration of construction activities at the Platform (see revised EA section 2.2.3).

F-49. Please see response to Comment F-7.

F-50. The statement (summarized) that construction activity at the San Francisco Transition Structure would require removal of large portions of the Platform, closure of two ferry berths, and detour of ferries and ferry patrons to an area outside the active construction area (EA page 3.7-4, lines 22-26) is correct. Accordingly, revised EA section 2.2.7 (Social Impacts) accurately depicts the impact of Platform construction on ferry patrons, consistent with revised EA section 2.2.3 (Vessel Transportation).

F-51. See response to Comment C-5. Revised EA section 2.2.7 accurately describes the public access improvements and uses at the Ferry Plaza Platform and vicinity, as well as potential impacts and mitigations proposed to offset the temporary loss of public access viewing space and improvements.

F-52. Please see response to Comment F-7.

F-53. Revised EA Section 2.2.2 is now consistent with this comment.

F-54. Please see response to Comment F-7. Golden Gate District's ferry operations would be maintained throughout the duration of project construction at the Platform to minimize disruption of service or impacts associated with loss of ridership.

F-55. BART standards are applied uniformly to protect ferry patrons, BART patrons, and other sensitive receptors. However, BART standards as applied at the Rockridge and West Oakland stations result in more stringent noise restrictions due to the proximity of residents.

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PORT OF OAKLAND

September 28, 2005

Ms. Janie Layton
BART Environmental Compliance
P.O. Box 12688, Mail Stop LKS-18
Oakland, CA 94604-2688

RE: BART SEISMIC RETROFIT PROJECT, BERKELEY HILLS TUNNEL TO THE MONTGOMERY STREET STATION, ENVIRONMENTAL ASSESSMENT

Dear Ms. Layton:

Thank you for providing the Port of Oakland (Port) with the opportunity to review the environmental document for the Bay Area Rapid Transit District's (BART) seismic retrofit project. A portion of the proposed project would occur within property currently owned by the Port of Oakland. Page 2-53 indicates that BART proposes to dry dredged material at the Port's Berth 10 re-handling facility, until the new Berth 29 is constructed. The eastern end of the BART "Tube" begins on Port property between 7th Street and Berth 34 and continues under San Francisco Bay. The proposed project could result in temporary impacts by interfering with the Port of Oakland's operations. The Port looks forward to maintaining consistent communications with BART regarding this project, as it critical for the Port's Maritime Division staff to be apprised of the project's activities. The Port's comments on the document/project are provided below. G-1

The document states in its Introduction on page 1-1, that the "Legislature has enacted a statutory exemption from CEQA for the project (Public Utility Code section 29031.1)" AB 1170 was introduced February 22, 2005 (by Assembly Member Canciamilla), which revised the exemption applicable to BART's seismic retrofit work on existing structures or facilities. The bill made the provisions of the exemption operative until June 1, 2010 (extended from June 2005) at which point it becomes inoperative. The Port has a particular interest in any changes to the construction/implementation schedule that could potentially affect its operations within the Maritime area. Please provide the Port with early notification of subsequent proposals (or amendments) that may extend the seismic retrofit project. G-2

Page 2-2 – States that it is planned to dredge a trench along the bottom of the bay. Please confirm at what width and depth the channel will be constructed. G-3

Page 2-54 and 2-55 (Figure 2-22), Project Construction Schedule – Please clarify that the units used are quarters (rather than months), i.e. the project will start in winter 2006. G-4

Page 2-56 – 2.4.2, Transbay Tube – The first paragraph refers to three design variations as alternatives to stitching the tube. There are, however, only two listed. It appears that the internal G-5

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G-5 battered micro pile tube tie-downs and installing a permanent coffer dam should be identified as alternatives three and four.

G-6 Page 2-57, 2.4.3 Aerial Guideways - Adding more pile foundations only where required. Please indicate where these locations are.

G-7 Page 3.3-4, 3.3.2.2 Impacts and Mitigation Archaeological Resources – The document states that any archaeological resources encountered during construction would be treated according to the provisions of 36 CFR 800.13 under the National Historic Preservation Act. The Port of Oakland additionally implements its own procedures when previously unknown resources are encountered during project activities. BART should follow the "Port's Plan of Emergency Action" if resources are encountered within the Port's property. A copy is enclosed for BART's use.

G-8 Page 3.4-1, Section 3.4, Transportation – BART's Vessel Transportation Technical Study determined that the proposed project could result in impacts by interfering with the Port of Oakland's operations. All identified impacts are identified as temporary. Some of the freeway segments on Interstates 880 and 580 that would potentially be affected are those that currently operate at an F Level of Service during A.M. and P.M. peak hours. The document identifies four specific segments: Interstate 880 south of 980, northbound in A.M. and southbound in P.M.BART proposes to mitigate these potential impacts by hauling the project dredge material outside of peak hours. What would the LOS be outside of peak hours?

G-9 Page 3.4-24, Interference with Designated Vessel Traffic Lanes - Construction barges in the entrance channel to the Outer Harbor could affect operations in the Outer Harbor by preventing access for vessels. BART proposes to mitigate this impact by consulting with the Port to determine the amount of space to leave open for vehicle passage during construction or if necessary utilizing the micro pile anchorage method rather than vibro-replacement. The Port concurs with this mitigation measure.

G-10 Page 3.4-30, Preclude Use of Vessel Infrastructure at Port of Oakland – The vibro-replacement method could preclude Berth 34 from being used for a one-month period. BART proposes to schedule this activity at a time when no container ships are scheduled to arrive at Berth 34. BART is also prepared to not conduct vibro-replacement immediately offshore should it not be able to allow adequate space for vessel passage at the Outer Harbor Entrance Channel. The Port concurs with this mitigation measure.

G-11 3.5 Geology Seismicity, Topography and Stratigraphy – Stitching excavations would be required to install each stitching piling group on the Oakland end of the "Tube". This would include the area within the Port's property. The document indicates that the excavations would be temporary therefore no permanent changes in topography would occur. Temporary slopes near the Oakland Transition Structure would be shallow and completed in accordance with

recommendations made by a licensed geotechnical engineer. The Port requests that BART submit, for Port staff-review, copies of geotechnical reports, design plans, and recommendations for all excavations within the Port's property. G-11

3.6 Hazardous Materials - The Port should additionally review BART's Storm Water Pollution Prevention Plan, Health and Safety Plan, and Soil Management Plan applicable to the areas within Port property. G-12

Please contact Mr. Richard Sinkoff, Environmental Assessment Supervisor at (510) 627-1182 or Renée Ananda, Associate Port Environmental Planner at (510) 627-1351 regarding the Port's comments on BART's Seismic Retrofit Project.

Sincerely,

Roberta L. Reinstein, Manager
Port of Oakland
Environment and Safety Department

Attachment

cc: Jerry Serventi, Director of Engineering, Engineering Division, Port of Oakland
Jon Amdur, Maritime Projects Administrator, Maritime Division, Port of Oakland
Richard Sinkoff, Environmental Assessment Supervisor, Engineering Division, Environment & Safety Department, Port Oakland
Renée Ananda, Associate Port Environmental Planner, Engineering Division, Environment & Safety Department
Environment and Safety Department File #2004171

Roberta L. Reinstein, Port of Oakland, September 28, 2005

G-1. Comment noted. BART will continue to maintain consistent communication with the Port's Maritime Division staff to ensure proposed retrofit activities will not interfere with Port of Oakland operations.

G-2. As stated in the EA (page S-1), pursuant to the CEQA exemption then in effect, the BART Board of Directors adopted the proposed project as described in the EA for the purposes of CEQA. The 2005 CEQA bill to which the comment refers will apply to future earthquake safety activities. BART will continue to maintain communication with the Port of Oakland to ensure any potential changes in project schedule do not adversely affect any Port operations within the Maritime area.

G-3. As discussed in EA section 2.2.1, "The Transbay Tube was installed by dredging a trench along the Bay bottom and laying a 2-foot thick layer of gravel to the bottom of the trench." The proposed project involves retrofit activities for existing structures and does not require dredging a trench along the Bay bottom.

G-4. Proposed retrofit activities are anticipated to commence in winter 2006; the project construction schedule is based on quarters, not months.

G-5. EA section 2.4.1 describes design variations considered for retrofit of the Transbay Tube, but eliminated from further evaluation. Consistent with this comment, the EA has been revised to state that four design variations were considered as alternatives to stitching the Tube (see revised EA section 2.1.5).

G-6. Please refer to EA Figure 2-18 for the general location of aerial structures and station retrofits.

G-7. BART will continue to work with the Port to ensure any unexpected cultural resources encountered during construction will be treated consistent with the Port's *Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources*.

G-8. Identifying level of service (LOS) conditions during non-peak hours is generally not required during standard surveys and modeling; therefore, conditions were determined by the PeMS database that logs average speeds along freeway intersections from California freeway traffic detectors, as well as incident-related data from the California Highway Patrol (CHP). According to PeMS data identifying travel speeds along the four freeway intersections identified in the EA, during non-peak hours, average speeds are generally greater than 60 miles per hour consistent with LOS D or better conditions. Furthermore, as several seismic retrofit techniques have been determined to be technically infeasible and/or ineffective and will not be implemented as part of the project (i.e., stitching the Tube; piles and collar anchorage; and the Isolation Wall Retrofit Concept), the total project dredge volume has been reduced to 5,000 cy, resulting in a substantial reduction in the number of truck trips required to haul dredge material analyzed in the EA.

G-9. Comment noted.

G-10. Comment noted.

G-11. Based on further design analysis, BART has determined that stitching the Tube is not a viable retrofit technique for preventing longitudinal movement at the seismic joints (see revised EA section 2.1.1), and therefore, stitching at the Oakland end will not occur. However, for any excavations occurring on Port property, BART will consult with the Port to ensure that all applicable geotechnical reports, design plans, and recommendations are provided for review by the Port to ensure proposed retrofit activities will not interfere with Port of Oakland operations.

G-12. BART will continue to work with Port staff and provide copies of applicable Health and Safety Plans and Soils Management Plans for retrofit activities located on Port property. In addition, a SWPPP will be prepared and implemented for all landside project activities in accordance with the Clean Water Act (CWA) Section 402 permits, as discussed in EA Appendix C, section C.1.

TO: Janie Layton
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(510) 874-7423
jlayton@bart.gov

CC: James Swindler/Golden Gate Bridge District, Ernest Sanchez/ Alameda Oakland Ferry Service, Lindy Lowe/BCDC, Dan Hodapp/ Port of San Francisco, Byron Rhett/Port of San Francisco

DATE: September 28, 2005

RE: BART Seismic Retrofit Project Environmental Assessment

I am writing to comment on the environmental assessment for the BART Seismic Retrofit Project. The BART Seismic Retrofit Project has regional significance to the Bay Area's transportation system and we appreciate the opportunity to comment on it.

The Water Transit Authority is a regional ferry planning and operations agency but does not currently operate ferries within the project area. However, we are currently in discussions with the City of Alameda to operate the Alameda/ Oakland and Harbor Bay Ferry Services and could therefore be an operator during the seismic retrofit construction. In addition, the WTA is currently sponsoring pedestrian and access improvements around the ferry building and is therefore interested in impacts to the Ferry Building Plaza. H-1

Page 1-7 accurately recognizes the importance of BART (and this project) during an earthquake or other emergency event. It also correctly notes that, even with expanded ferry service, all displaced BART riders could not be accommodated on ferries. However, while the overall ridership may be small, ferries do play an important role in Bay Area transportation.

The daily ferry system ridership is approximately 5,500 trips per day. A majority of those trips take place during the peak hours. The WTA has forecast that this volume represents one lane of traffic on the Golden Gate Bridge during the peak hour, and approximately half a lane of traffic on the Bay Bridge during the peak. Therefore, any disruption to ferry service that reduces ridership could have a noticeable effect on these two key pieces of transportation infrastructure. In addition, during emergency events, ferries are planned to play a key role in transporting first responders, as well as in evacuation of waterfront neighborhoods. Therefore, we want work with BART to minimize disruption to ferry service. H-2

As I understand, there will be several different strengthening activities ongoing around the ferry building.

- Tube micro pile or vibro replacement, which is intended to holds down the BART tube
- Stitching, which involves driving piles around existing BART tube joints to keeps them from separating
- Steel pile retrofit concept or isolation wall at the San Francisco transition structure, which is intended to keep bay material from sliding into tube
- Joint restoration, which will further strengthen the tube joints but will be done from inside the tube

H-3

Page 3.4-31 indicates that construction work would preclude the use of the northern berth of the South Terminal (used for Alameda, Harbor Bay and Oakland ferry service) for up to 1 year, and that Golden Gate Berth 2 could be unavailable for as much as one year.

Table 3.4-7 lists five potential mitigation measures to this disruption.

1. Adjusting East Bay ferry schedules so all vessels can use the southern berth of the South Terminal
2. Use of Pacific Bell Park or Pier 27 berths
3. Adjusting Golden Gate schedules so all vessels can use Gate 1
4. Build a new float at Pier ½
5. Alter supply barge operations so barges would only be present outside the operations hours for the South Terminal.

H-4

Mitigations 1 and 3 would have some impact on ridership (likely small) and some operational cost implications (related to changing schedules and associated signing around the ferry building). In addition, the US Coast Guard has indicated to us that they have security concerns about placing facilities close to the South Terminal, as shown in Figure 2-13. More importantly, elimination of access to ferry gates would reduce the potential ferry capacity at the terminal by 33% (taking two out of the six gates out of service). While that may be accommodated during usual operations, it would be a significant effect during emergency operations when gate capacity could be a limiting factor. This would therefore affect the ability of ferries to perform during an emergency event.

H-5

Mitigation 2 proposes relocating the terminals one to three miles from their current locations. The WTA's ridership studies indicate that this relocation could have a significant adverse effect on ferry ridership, and the resulting fare revenue accompanying that ridership. A majority of the ferry riders are headed to destinations within half a mike of the ferry building. While transit connections

H-6

might be available from the relocated terminals, we would still expect ridership to drop. As noted above, this reduction in ridership could have a noticeable effect on bridge congestion, and therefore does not appear to be effective. H-6

I therefore request that mitigations 1,2 and 3 be eliminated from consideration. However, I suggest that another mitigation be added for consideration. The Port's plan for the ferry building area includes the addition of another ferry gate to the south of the existing Alameda/Oakland gate. The WTA's expansion plans do not warrant the construction of that gate for approximately 10 years. However, if the gate was constructed prior to the BART retrofit project, it could provide the additional capacity to minimize schedule disruption as well as address potential US Coast Guard security issues. Obviously, we would not expect BART to bear the full cost for this construction. However, the additional gate would allow BART's retrofit contractor unlimited access to the north side of the South Terminal. H-7

Figures 2-10, 2-12, and 2-13 all indicate that a portion of the ferry plaza will be unusable during the construction. Page 3.11-7, line 28 indicates that this impact is considered negligible. It is not clear from the drawings the exact extent of the construction activities. However, the walkway at the rear of the ferry building is the primary access corridor for ferry riders and cannot be replaced by other opportunities for sightseeing in the immediate vicinity. It is therefore critical that this passageway be kept clear of construction activity. We suggest as mitigation that the construction specifications include a requirement mandating continuous access for a 40' wide corridor at the rear of the ferry building. H-8

The figures also indicate disruption to the existing Golden Gate ferries ticket booth. As you may know, the existing operators are now working on a plan to consolidate ticketing into a single facility. The Golden Gate ticket facility is the only publicly owned facility that could currently accommodate this consolidation. Therefore, we request that the environmental document address relocation of this facility specifically. H-9

Regarding potential noise impacts, Page 3.2-9 line 7 indicates that conventional pile driving would "interfere with speech communication outdoors and indoors". Page 3.2-10 line 2 notes that conventional pile driving "would cause a substantial disturbance to persons outside in public areas, and inside the restaurant and other nearby buildings". These impacts appear to apply to any of the construction activities that use conventional impact pile drivers. H-10

The proposed mitigations for use of conventional pile driving, listed on Page 3.2-10, starting at line 6, are avoiding high public use times, use of noise barriers, advance public notice, and a hotline for noise complaints. The document does not note which are considered high use times. However, verbal communication is essential during all ferry operations. In addition, given the high level of activity H-11

around the ferry building, I would imagine that limiting hours of conventional pile driving operations would be limiting. Pre notification of pile driving activities would not be an effective mitigation.

H-11

The EIR indicates that rotary or oscillating pile-driving equipment would have a lesser effect. The EIR does not indicate how or when the decision will be made to use one type of pile driving over the other. I would recommend that rotary or oscillating pile-driving equipment be the only mitigation that would be effective in the Ferry Building area and suggest the document be revised to reflect that.

H-12

Again, we appreciate the opportunity to comment on the document and look forward to working with BART to implement this important transportation project.

Steve Castleberry, CEO
Water Transit Authority
120 Broadway
San Francisco, CA 94111
(510) 291-3377

Steve Castleberry, Water Transit Authority, September 28, 2005

H-1. Comment noted.

H-2. See response to Comment F-7. BART intends to provide continual access to the North and South Terminals through mitigation (summarized) requiring construction supply barges to be tied off at the northern and eastern ends of the Platform, and use of another berth at SBC Park or Pier 27 in the event of unscheduled maintenance or emergency. In addition, a functionally equivalent temporary terminal for Golden Gate Ferry operations is proposed to ensure continual service throughout the duration of construction as described in revised EA section 2.2.3 and identified on Figure 8. Mitigation is also proposed (see revised EA section 2.2.3, Ground Transportation) to ensure adequate pedestrian access and circulation by maintaining a 40-foot wide corridor behind the Ferry Building, and through dedicated queuing areas at each of the ferry terminals. BART will continue to work with the Water Transit Authority (WTA) to ensure proper implementation of these mitigation measures to maintain continual ferry operations.

H-3. See response to Comment H-2. Based on further design analysis, BART has determined the following techniques to be technically infeasible and/or ineffective for retrofit activities in the vicinity of the Ferry Plaza Platform: stitching the Tube; piles and collar anchorage; and the Isolation Wall Retrofit Concept. Therefore, impacts associated with implementation of these retrofit activities will not occur.

H-4. See response to Comment F-7. Based on further design review, the referenced EA Table 3.4-7 mitigation measures were revised to more specifically address and minimize vessel transportation impacts anticipated under the plaza-based construction method. See also revised EA section 2.2.3 for additional details.

H-5. Please see response to Comment F-7. Revised mitigation measures proposed to ensure all ferry terminal operations are maintained throughout the duration of proposed construction activities are described in detail in revised EA section 2.2.3. Measures include (in summary): construction of a temporary, dual-berth Golden Gate Ferry Terminal at future Gate C; reconstruction of a permanent Golden Gate Ferry Terminal at the Platform following project completion; tying off construction supply barges to the northern and eastern ends of the Platform or providing advanced notice of barge movement; and, specific to unscheduled maintenance or potential emergency situations, providing access to a SBC or Pier 27 ferry berth. Access to all six operating berths is proposed to be maintained throughout construction at the Platform. As a result, the need to adjust schedules (referenced EA mitigation measures 1 and 3) is not anticipated except on an occasional basis and with the concurrence of the ferry operator. Therefore, the proposed project would not interfere with the ability of ferry operators to maintain service under normal operations or in the event of an emergency.

H-6. See response to Comment H-5. The ferry berths at SBC Park and/or Pier 27 will only be used in the event of unscheduled maintenance or emergency situations; these berths will not be used for commuter services or as a relocation option for ferry terminal infrastructure or operations. Implementation of revised vessel transportation mitigation measures (see revised EA section 2.2.3) will ensure impacts to ferry service at all

terminals at the Ferry Building are avoided or minimized throughout the duration of project construction.

H-7. Please see response to Comments H-5 and H-6. The referenced EA mitigation measures 1, 2, and 3 from Table 3.4-7 have been eliminated (e.g., adjustment of schedules) and/or refined (e.g., use of SBC Park or Pier 27 ferry berths for unscheduled maintenance or emergency situations only) as described in revised EA section 2.2.3. The detail of all vessel transportation mitigation measures was increased to effectively address and minimize impacts, and to ensure continual ferry terminal operations throughout the duration of construction. As a result, there is no need for additional capacity or construction of an additional ferry gate south of the existing South Terminal. Future planning by the Port and the ferry operators for a potential additional ferry gate is too speculative at this time to be analyzed in the EA.

H-8. Please see response to Comment C-5. The proposed construction phases at the Platform are described in revised EA section 2.1.2 and depicted on Figures 2 through 7. The total maximum area of the Platform to be removed is approximately 59,000 sf, which is consistent with estimates analyzed in the EA. However, the maximum Platform area that would be restricted from public use during any of the construction phases would be 39,000 sf. To ensure sufficient pedestrian access behind the Ferry Building duration construction, the EA has been revised to include provisions for a 40-foot wide corridor located at the rear of the Ferry Building (see revised section 2.2.2, Ground Transportation). Visual impacts resulting from the temporary removal of public viewing space at the Platform are described in EA section 3.8.2.2. Visual impacts resulting from the proposed construction and operation of the temporary Golden Gate Ferry Terminal at future Gate C are assessed in revised EA section 2.2.8.

H-9. Please see response to Comment F-7. The EA has been modified to clarify that BART will provide a temporary Golden Gate Ferry Terminal at future Gate C, including a functionally equivalent ticketing booth (see revised EA section 2.2.3). Future planning by the Port and the ferry operators for a potential consolidated ticket facility is too speculative at this time to be analyzed in the EA.

H-10. Please see response to Comment F-36. Further design review indicates that an estimated six of the total 116 steel pipe piles associated with Pile Array installation at the San Francisco Transition Structure may require use of an impact hammer due to difficult soil conditions. However, use of an impact pile driver will be limited those times discussed in revised EA Section 2.2.1, to minimize noise levels experienced by neighboring tenants and patrons (i.e., within 200 feet of construction activity).

H-11. As described in response to Comment F-36 and revised EA section 2.2.1, high public use times are described for this project as the lunch and dinner hours, consistent with mitigation proposed for the Downtown San Francisco Ferry Terminal Project and implemented successfully during construction of the San Francisco Muni Project. Pile driving activities will be limited to between the hours of 7:00 A.M. and 12:00 noon, and between 1:30 P.M. and 3:30 P.M. to have the least impact on the restaurant patrons and other people using the public outdoor and indoor spaces at the San Francisco Ferry Plaza. Revised EA Project Construction Standards for Noise (section 2.2.1) have been

refined to further ensure noise levels on sensitive receptors within 200 feet of the San Francisco Transition Structure associated with use of general construction equipment, dredging activities, and oscillating or rotating techniques are maintained within BART construction noise limits.

H-12. Please see response to Comments F-18 and F-36.

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PORT OF SAN FRANCISCO

September 28, 2005

Via Fax and Messenger Delivery

Ms. Janie Layton
BART Environmental Compliance
300 Lakeside Drive, 18th Floor
P.O. Box 12688, Mail Stop LKS-18
Oakland, CA 94604-2688

Re: Environmental Assessment for BART Seismic Retrofit Project

Dear Ms. Layton:

The August 2005 BART Seismic Retrofit Project Environmental Assessment ("EA") describes the San Francisco Bay Area Rapid Transit District ("BART") proposal to construct a seismic retrofit of certain BART transit system facilities (the "Project"), some of which are located within the jurisdiction of the Port of San Francisco ("Port"). The Port recognizes the importance of BART's need to strengthen BART system facilities in anticipation of a potential future earthquake. In reviewing the EA, Port staff have considered the Port's role and responsibilities as both landowner and public agency, interested in the potential impact on Port and Port tenant facilities and operations, existing Port agreements, as well as Port or City-wide policies related to issues such as public access, historic preservation, and maritime/ferry operations that pertain to the Project area and the Port's larger public trust responsibilities. I-1

The Port anticipates negotiating an agreement with BART to not only authorize entry for the Project work as described in Section 5.0 of the EA, but to address other issues related to project impacts and reconstruction of Port facilities consistent with Port requirements and policies. Further, the Port anticipates that it will be included in other agreements with Port tenants related to this project in order to ensure that mitigation measures are consistent with Port objectives and other agreements pertaining to the area.

Port of San Francisco Overview

BART's Project lies within an area of San Francisco that we refer to as the "Ferry Building and Downtown Ferry Terminal" area. This area has undergone dramatic transformation in the past decade due to major public and private capital improvement projects, beginning with removal of the Embarcadero Freeway in the early 1990's. In the last five years following the City's redesign of The Embarcadero, there have been millions of dollars in private and public funds invested in the historic rehabilitation of the Ferry Building and Marketplace, integrated with an expansion and improvements in the Downtown Ferry Terminal; the relocation and capital improvements to the new World Trade Club at the east end of Ferry Plaza; the introduction of the popular Farmer's I-2

Market operated by the Center for Urban Education about Sustainable Agriculture ("CUESA"); and major investments in new public access and amenities. Together with the Golden Gate Ferry Terminal, Agriculture Building/Amtrak terminal and Sinbad's Restaurant, this urban mix of businesses and activities which are shown in Exhibit A have enlivened the waterfront, drawing high volumes of locals and visitors daily. I-2

The EA analysis indicates that the primary impacts associated with the retrofit project are expected to be construction-related. We understand that the project as described in the EA is a worst-case scenario, and that the actual as-yet-to-be-defined retrofit design may be scaled-down. Nevertheless, with an estimated construction schedule of two to four years, there will be a substantial amount of disruption, inconvenience and possible adverse business impacts for many Port tenants and, in turn, adverse impacts on Port revenues. The Project may also impact other Ferry Building area stakeholders and potentially other neighboring land uses beyond the immediate Ferry Building/Downtown Ferry Terminal area. The EA construction impacts discussion needs to be expanded to acknowledge this context and provide a more specific description of the types of impacts that can be anticipated, and the types of mitigation measures that may be employed to reduce or avoid them. In this letter, we have flagged some of the construction-related impacts that should be addressed in the EA. I-3

We understand that BART has a very hands-on construction management and community outreach team to develop a framework to mitigate as many of these impacts as possible, which is reported to have been effective in other BART projects. To ensure an accurate understanding of this function, the EA also should include information about the way in which BART's construction management practices would mitigate the various types of impacts that can be anticipated in the Ferry Building area. I-4

This mitigation framework will be extremely helpful in BART's ongoing efforts to work with affected businesses and entities to develop enforceable project construction specifications and accommodations to provide assurance of BART's commitment to minimize or avoid construction period impacts, and to the maximum extent possible, to keep all of the affected water transit operations and other business entities in the area fully functioning and whole. Toward that end, BART has indicated its willingness to enter into agreements with the affected businesses/parties that would include more specific commitments regarding mitigation of Project impacts. One very important point to keep in mind is that any such proposed agreements affecting Port property should include the Port. Each tenant has an existing agreement with the Port, and thus there is a need to ensure that any agreement with BART is not in conflict. Moreover, as described in further detail below, there are several instances in the Ferry Building area where there are overlapping uses and regulatory obligations that would need to be respected or reconciled in any new agreements with BART. Finally, the Port, like BART, is accountable to the public regarding the manner in which its property is used, and thus must maintain its involvement accordingly. I-5

At the time of BART's original construction of the Transbay Tube in the late 1960's, the Port and BART signed an Agreement for Joint Exercise of Powers to define I-6

the scope of construction, property rights and responsibilities, and conditions to address certain impacts of the project. A similar type of agreement will be required between the Port and BART regarding the current seismic retrofit work, in addition to any agreements with individual tenants. The Port anticipates negotiating an agreement with BART that would, in part, enable ongoing discussion to define mitigations that can be approved as more detailed information about project design and construction is provided. I-6

Ferry Building Area Uses and Features

Below, we provide a description of some of the major functions, uses or entities in the Ferry Building/Downtown Ferry Terminal area. The EA descriptions of the existing environment and related impacts analysis in each subsection of Section 3 and 4 of the EA should include and address these existing Port facilities and operations and adjacent properties within the City that may also be affected by the Project (e.g. Water Resources, Noise, Transportation, etc.). A site plan showing the locations of these activities is provided in Exhibit A.

Public Access. Much of the outdoor area on the Ferry Platform and around the Ferry Building is dedicated public access pursuant to several permits issued by the San Francisco Bay Conservation and Development Commission ("BCDC") to Port tenants. Public access improvements on the Platform include hardscape and landscape materials, railing, benches, signage, striping, vehicle demarcation-bollards, bull-rail, lighting, and utilities. The Port is co-applicant on the BCDC Permits covering this area and, in some instances, is responsible for installing and maintaining certain public access improvements on the Ferry Platform within the Project area. I-7

Several Port tenants at the Ferry Platform rely upon much of this same outdoor area to serve other functions besides public access, including but not limited to: vehicular access for the patrons of the World Trade Club, vehicular freight deliveries, trash collection and maintenance at the World Trade Club, Golden Gate Transit District and the Ferry Building; farmer's market staging area and parking areas; special events; entertainment, and public art displays.

Downtown Ferry Terminal and Ferry Platform. In general, the proposed Project is located in the center of the San Francisco Downtown Ferry Terminal ("DFT") which is centered on the Ferry Platform with berthing facilities flanking both the north and south sides (see Exhibit A). The DFT has been re-established as the central hub for all ferry and excursion vessel traffic in San Francisco Bay pursuant to the Metropolitan Transportation District's ("MTC") Regional Ferry Plan. As a result, the Port constructed approximately $17 million in new improvements at the Downtown Ferry Terminal in 2001. Average daily ferry ridership in San Francisco (including weekends) on existing ferry routes is approximately 5,500 trips per day, with weekday ridership volumes at approximately 10,000 trips per day. The DFT currently accommodates multiple ferry service providers serving Alameda/Oakland, Vallejo, Tiburon, Larskpur and Sausalito. In 2007, the Water Transit Authority anticipates opening a new ferry route from South San Francisco with additional vessels landing at Gate E.

Not unlike BART's objectives for its transit facilities, the Port's DFT includes land and waterside improvements that are designed to provide safe and efficient landing areas for commuter and excursion vessels that will continue to be functional in a natural disaster. The 1989 Loma Prieta earthquake and 1994 Northridge earthquake near Los Angeles underscore the value of a multimodal transportation system in maintaining regional mobility in the wake of a natural disaster. The DFT is within a seismically active region, therefore all new ferry terminals and decks have been designed as essential structures to remain functional after a major seismic event, thereby allowing for emergency operations and transportation services should there be a disruption to the bridges and/or highway system.

The Golden Gate Bridge Highway and Transportation District ("GGBD") is the largest single ferry operator at the DFT. The GGBD leases approximately 28,300 sq. ft. of the Ferry Platform and approximately 100,000 sq. ft. of water area north of the Platform including exclusive berthing privileges in that area. The landside terminal facilities include a ticket office, covered passenger waiting areas and restrooms, bicycle parking, and public access viewing areas. There are two berths that each accommodates one vessel. The GGBD recently installed security improvements at its landside terminal facilities including polycarbonate barrier panels, signage and security gates. The outdoor area on the Ferry Platform serves other functions besides public access as discussed above. Ferry passengers utilize the Ferry Platform and the Ferry Building environs in general for way-finding, access and circulation.

I-7

Ferry Building and Ferry Platform. The Port leases the Ferry Building and most of the Ferry Platform to Ferry Building Investors, LLC ("FB Investors"). The Ferry Building is listed on the National Register of Historic Places and was rehabilitated by FB Investors consistent with the Secretary of the U.S. Department of the Interior's standards to qualify as a federal tax credit project. Beginning in 2005, the project will be monitored by the National Parks Service and State Historic Preservation Office for a five year period in accordance with the federal tax-credit guidelines.

The Lease for the Ferry Building includes approximately 105,000 sq. ft. of pier and land area and includes the Ferry Building and an additional 44,000 sq. ft. of the Ferry Platform used for weekly farmers markets, special events, public access, and other uses as permitted under the lease. In addition, FB Investors have a Parking License with the Port for approximately 5,000 sq. ft. of the Ferry Platform for farmers market parking purposes. The EA should address the following uses and operations managed by FB Investors that may be affected by the Project including potential direct impacts (e.g. operations in the area that will be temporarily relocated) and other potential environmental impacts within the area (e.g. noise):

- 65,000 sq. ft. of locally oriented public food market on the ground floor, including outdoor dining along the northerly side of the building facing the Bay and Ferry Platform

- 175,000 sq. ft. of Class A office space on the second and third floors, and the Port of San Francisco Hearing Room

- Farmers Markets operating four days per week including Saturday, staging within approximately 45,000 sq. ft. of the Ferry Plaza portion of the Ferry Platform, and parking areas on the east end of the Ferry Platform

World Trade Club and Ferry Platform. The Ferry Plaza Limited Partnership ("FPLP") operates a long-term lease on the Ferry Platform directly above and surrounding BART's transition structure within an approximately 35,000 sq. ft. lease area. The World Trade Club is a subtenant of FPLP and manages an international business association that includes indoor and outdoor dining and conferencing/entertainment facilities. Vehicular and pedestrian access is provided to the World Trade Club within the Ferry Platform, including a drop-off and pick-up area for valet parking operations. Landscape and hardscape areas are also maintained by the World Trade Club around the perimeter of the facility on the Platform, including some public access areas outside of the lease area. I-7

Gandhi Statue. The Port leases approximately 100 sq. ft. to the San Francisco Arts Commission within Ferry Plaza for its installation of a sculpture of Mahatma Gandhi.

Other Port properties. Other Port properties and operations in the nearby vicinity of the project should be identified and the respective potential impacts described, including the Agriculture Building, a National Register resource, and Pier 1 office uses, and Sinbads and Pier 1 Deli indoor and outdoor dining uses. The Ferry Building, Agriculture Building, and Pier 1 are included in the Embarcadero Waterfront Historic District, which is pending action for listing on the National Register of Historic Places.

Other City properties. Other properties within the City and within the environs of the proposed Project should be acknowledged, particularly any sensitive receptors to noise or other such impacts, including the Golden Gateway residential area, Rincon residential area, Ferry Park, Hyatt Hotel, Embarcadero Center, etc.

Impacts and Mitigations

As indicated above, we have identified various issues that should be more completely addressed in the EA, which are presented below. The EA should describe the potential impacts to such properties and operations in greater detail, commensurate with a more detailed description of such existing uses and operations, and prescribe mitigation measures for such impacts. I-8

Downtown Ferry Terminal. Section 3.4 of the EA indicates that installation of the retrofit concept at the San Francisco Transition Structure may include removing and then restoring each of the two berths at the Golden Gate Transit Terminal. Section 2.0 of the I-9

EA (Figure 2-10) indicates construction of a pile array within the existing landside passenger facilities at the Golden Gate Transit Terminal, precluding use of these facilities during construction. Figure 2-12 and Section 3.4 indicate that the northern berth of the South Terminal at Gate E could be temporarily removed during construction. The description of Project Alternatives should describe the temporary displacement and replacement of these ferry transit facilities in greater detail, including the temporary relocation of berths and passenger waiting/ticketing areas designed to maintain existing
I-9 levels of service for Golden Gate and all other water transit providers. Diagram(s) to indicate the approximate location of proposed replacement facilities during construction, and analysis of any potential construction impacts (i.e. visual, temporary queuing, etc) should also be included. This analysis should include the potential water quality and biological impacts from temporary relocation of ferry berths and/or passenger facilities, including potential for disturbances to water quality and localized resuspension of bottom sediments, shadowing of bay waters, etc.

Noise. The EA should describe the anticipated day or night time periods during which retrofit activities may occur at the San Francisco Transition Structure, including the potential for both day and night shifts in order to expedite project construction. Section 3.2 should also acknowledge potential disturbance to neighboring uses, particularly the outdoor businesses and restaurants (i.e. Ferry Building marketplace, farmers market, World Trade Club, Sinbads, Pier 1 Café), residential or hotel uses (i.e.
I-10 Golden Gateway, Hyatt) and office uses (i.e. Ferry Building, Pier 1, Agriculture Building) and other potential sensitive noise receptors in the surrounding area. The impacts within the dedicated public access on the Ferry Platform should also be described. Any procedures for convening with the businesses specifically affected by noise to discuss and/or negotiate noise-limiting mitigations for the project, and a process for ongoing feedback during construction, should be included.

The Ferry Building, Pier 1 and Agriculture Building are important historic buildings that need to be protected against construction impacts. While the Ferry Building and Pier 1 have recently undergone seismic retrofit and historic rehabilitation, the Agriculture Building has not. The EA should set forth a mitigation framework that identifies how construction impacts can be measured and monitored as it relates to vibration impacts from pile driving and high impact construction activities that could
I-11 impact both rehabilitated structures and related tax-credit responsibilities or structures that have yet to undergo rehabilitation. Additionally the Port's adopted policy is to maintain, repair and conduct alterations on these structures consistent with the Secretary of Interior Standards for Historic Rehabilitation (Secretary Standards). We would expect BART to commit to this standard in its mitigation measures to avoid adverse impacts on historic and cultural resources.

Transportation Access. The DFT is configured such that north-Bay ferries arrive at berths on the north side of the Ferry Platform (i.e. Golden Gate berths or Gate B) and
I-12 east-Bay ferries arrive at/depart from the south side of the Platform at Gate E. This arrangement is designed to improve safety and efficiency of ferry operations by minimizing cross traffic whereby ferries must cross one another's path to get into their

respective berths. Proposed mitigation measures should be designed to avoid this "cross-over" problem or address impacts related to this issue. I-12

As stated above, the description of Project Alternatives should describe the potential, temporary displacement and relocation of any ferry berths in greater detail, including a diagram(s) to indicate the approximate location of proposed replacement facilities during construction and reference to any related construction or temporary queuing impacts, potential water quality and biological impacts, etc. I-13

Ferry passenger usage is affected by the presence (or lack) of landside passenger amenities, i.e. covered waiting areas, spacious public access and efficient and safe paths of travel. Replacement ferry facilities during construction of the project are highly desirable in order to minimize the potential for lost ridership and the resulting increase in vehicle traffic. A comprehensive approach to mitigation that maintains existing levels of ferry service and comfort to all affected ferry passengers may be the most effective means of avoiding long-term transportation impacts. I-14

Geology/Seismicity. Project construction will require removal of large portions of the Ferry Platform, a pile-supported structure that was engineered and constructed to meet certain loads and seismic stability requirements. Structures constructed on top of the Ferry Platform may also be removed during construction. The Port expects that Project mitigation will call for design and reconstruction of Port facilities that are altered during Project construction, and that such reconstruction will be designed to meet seismic and other requirements for such construction as per current San Francisco Building Code. I-15

Risk of Upset/Safety. The EA should acknowledge the role of the DFT as a means for evacuating the City by ferry in the event of certain emergencies. Mitigation measures should include plans or methods for coordination between BART, the Port's Homeland Security Director and the City of San Francisco Office of Emergency Services to develop alternative response plans for emergencies that could arise during Project construction. I-16

Visual Resources The visual analysis should acknowledge the existing improvements and operations around the Project area, including the high levels of public use and visitation experienced on and around the Ferry Platform construction site. The analysis should also address any temporary relocation of ferry facilities. Mitigation measures should be responsive to the improvements and ongoing operations in the immediate environment. I-17

Air Quality. As described earlier, there are a number of outdoor operations in the immediate vicinity of the project that may incur air quality impacts during Project construction. In particular, these include the outdoor dining areas throughout the Ferry Building/Downtown Ferry Terminal area, as well as public access areas, which would be expected to be exposed to varying levels of construction dust and particulates, and emission odors and particulates. The EA should describe the potential impacts to such . I-18

properties and operations in greater detail and prescribe mitigation measures for such
I-18 impacts.

Social Impacts. The temporary removal of the Ferry Platform will affect major Port tenant operations and thousands of persons every day including, but not limited to: ferry passengers each week that utilize the Platform for access and circulation at the DFT; approximately 5,000 people each Saturday that attend the Farmers Market on the Platform, farmers that rely upon the Platform for market-day parking; and the patrons of the World Trade Club that will no longer have vehicular access to the facility. These figures do not include the thousands of visitors to the Ferry Building each week that spill-out onto the Ferry Plaza throughout the day for seating and eating or the special events that are staged on the Platform throughout the year. The loss of this public space during Project construction may have a detrimental impact to business operations on the Platform and in the Ferry Building since the public area provides access to such business,
I-19 enhances the visitor experience and includes seating for viewing and public outdoor dining. Following construction, if such impacts occur, these businesses will need to recover and resume current levels of operation. Therefore, replacement of the Ferry Plaza to its "pre-project condition" is not sufficient mitigation given the magnitude of the potential impact on the public and Port tenant operations. The Port recommends that the EA include, as mitigation, further negotiations with the Port regarding specific public access improvements at the Ferry Platform that could be constructed as part of the required Project mitigation, including enhancements that could offset construction impacts and assist operations in the area with post-construction recovery, if needed.

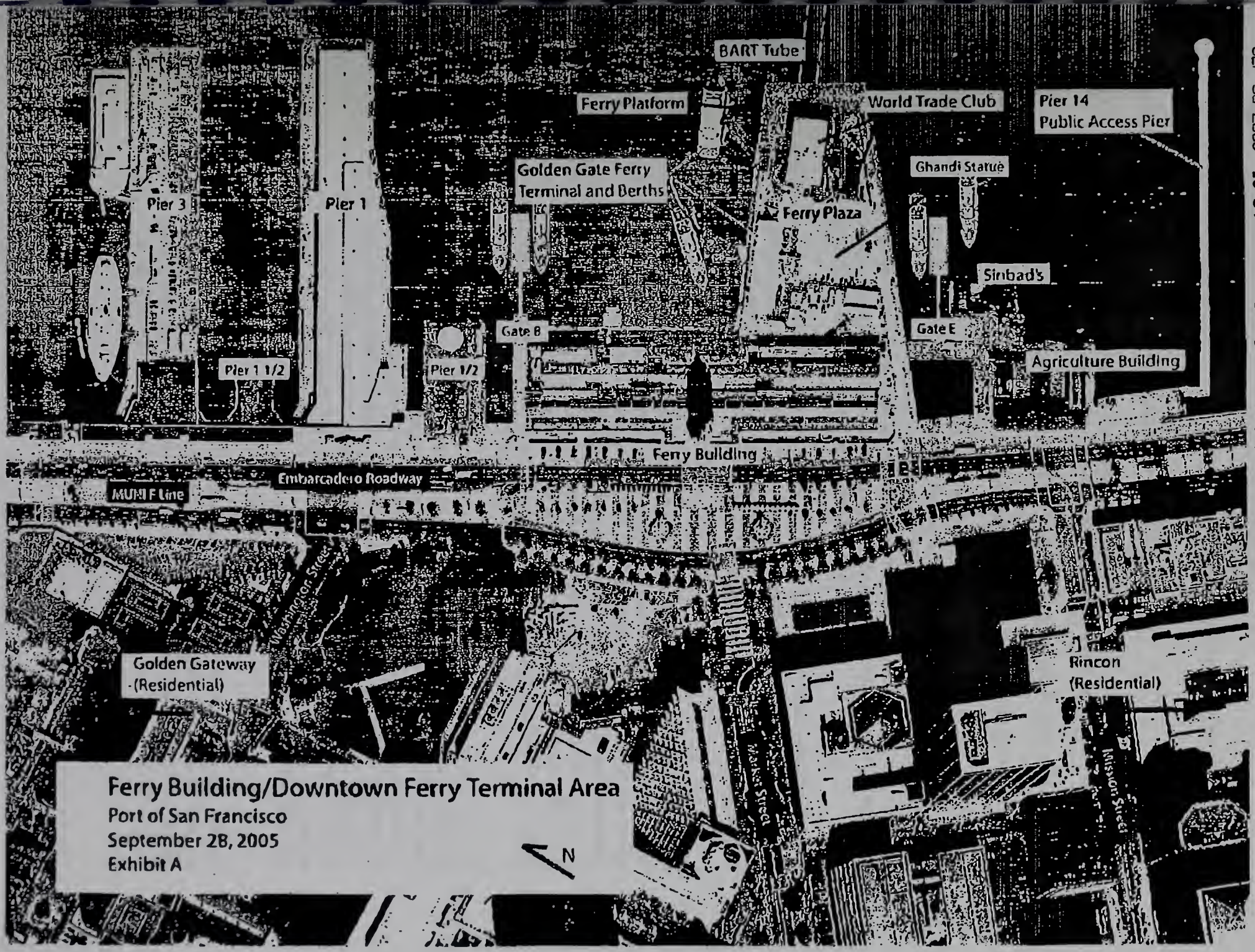
The Port appreciates the opportunity to comment on the EA and looks forward to working with BART in a cooperative fashion to accomplish this project in a manner that addresses these and other issues that may be of concern to the Port and its constituents as the project moves forward.

Sincerely,

Byron Rhett
Director, Planning & Development

Attachment - Exhibit A

cc: Will Travis, BCDC
Denis Mulligan, Golden Gate Bridge District
Mary Hunter, Equity Office Properties
George Lu, Ferry Plaza Limited Partnership
Tim Odenweller, World Trade Club
Steve Castleberry, WTA



Ferry Building/Downtown Ferry Terminal Area

Port of San Francisco
September 28, 2005
Exhibit A

Byron Rhett, Port of San Francisco, September 30, 2005

I-1. BART also anticipates entering into agreements with the Port, and will continue to work with the Port to ensure project activities are consistent with their policies and objectives.

I-2. Comment noted. Responses to each of the Port's specific comments are provided below.

I-3. Comment noted. Responses to each of the Port's specific comments are provided below.

I-4. BART's construction management and community outreach team will be used to facilitate the proposed project. BART's construction management staff will be tasked with the mission of enforcing compliance with the BART construction contract, including all environmental mitigation measures that are incorporated into the contract documents. Typical enforcement mechanisms can include refusal to accept substandard work, suspension or delay of work, or withholding of payment.

BART also has an experienced Community Relations (CR) staff tasked with the mission of conducting project communications and maintaining contact with key local stakeholders, affected groups and the general public. The goal is to provide advance information and preparation for those affected by construction, followed by responsive communications throughout construction.

Periodic meetings are held to keep groups informed about contract progress, learn of construction-related issues, provide status check-ins, and to provide an opportunity to hear concerns and discuss issues. The CR staff maintain several forms of public communication, including e-mail, a telephone hotline, and written communications. During construction, a contact phone number will be posted in the work areas. A project website is kept up to date as project information evolves. The CR staff is also in constant contact with the BART project management staff to convey the project issues raised by the public that require resolution with the contractor.

During construction, a single point of contact is identified for communication with affected groups. This streamlined approach allows for reliable, effective communications. The CR lead is positioned to address concerns in the field and respond directly to those expressing concerns. A Master Resolution Database is maintained to provide a record of issues raised and addressed. Notifications are distributed in advance of the start of all major construction activities to allow recipients to prepare for the new activity. BART project management and CR staff will work with stake holders to evaluate the posting of information in a variety of locations in and around the project work area, and will maintain information at community centers such as libraries, city hall, community recreation centers and other such locations.

The construction management and community outreach team will also ensure compliance with BART's standard construction practices, including Article GC7 of the 2003 General Conditions for Construction Contracts and Section 01 57 00 of BART Facilities, Standards, Standard Specifications, Release 1.2. Furthermore, EA vessel

transportation and noise mitigation measures have been refined to minimize environmental impacts (see revised EA sections 2.2.1 and 2.2.3).

I-5. BART will continue to consult closely with the Port and will obtain the Port's consent as necessary to ensure any new agreements between BART and Port tenants are not in conflict with existing Port contracts. BART, in cooperation with Caltrans and FHWA, will consult with the Port to discuss and coordinate implementation of the mitigation measures identified in the EA, to ensure ferry and commercial operations are adequately maintained throughout the extent of construction activities at the Ferry Terminal area. All temporary and permanent replacement structures will be designed to provide the functional equivalent of the existing facilities, but will also be consistent with applicable current building and seismic code standards. In addition, although implementation of mitigation measures is expected to ensure that construction period impacts remain less than substantial, BART will continue to consult with the Port and other affected entities to refine the implementation of these measures, in order to further minimize any unanticipated impacts and to address the Port's interests and obligations.

I-6. BART will enter into an agreement with the Port, the form of which will be agreed upon between the Port and BART (which may or may not be a joint powers agreement). The agreement will enable ongoing discussion to refine the implementation of mitigation measures, as more detailed information about project design and construction becomes available.

I-7. The EA has been revised to clarify the existing tenants, uses, and features located within the Ferry Building/Downtown Ferry Terminal Area consistent with this comment. In summary, the following existing settings have been updated:

- Revised EA section 2.2.1 (Noise) to reflect the proximity of nearby Port properties and operations, including the Ferry Building, Agriculture Building, Pier 1 offices, Sinbads, and Pier 1 Deli, as well as other City properties along the Embarcadero, such as residential areas, hotels, and commercial/office uses.
- Revised EA section 2.2.3 (Vessel Transportation) to describe the Downtown Ferry Terminal and Ferry Platform facilities and ferry services, including at the North Terminal, Golden Gate District Ferry Terminal, and South Terminal.
- Revised EA section 2.2.7 (Social Impacts) related to public access uses and improvements on the Platform and around the Ferry Building, including the Ferry Building Marketplace and offices, Farmers Market areas, World Trade Club, Gandhi statue, and hardscape and landscape materials.

I-8. The information provided in the preceding comment has been incorporated into the revised EA (see response to Comments I-9 through I-19).

I-9. Please see response to Comment F-7. BART has refined vessel transportation mitigation measures and integrated additional details into the conceptual design of the temporary, floating Golden Gate Ferry Terminal at future Gate C to ensure continual ferry operations throughout the duration of construction (see Figure 8). The revised EA has also been modified to assess temporary effects of the temporary Golden Gate Ferry Terminal

including turbidity, resuspension of bottom sediments, fill, noise, pedestrian circulation, and visual effects (see revised EA section 2.2.8).

I-10. Please see response to Comment F-18. Noise impacts at the closest sensitive receptors identified in this comment are expected to be minimal with implementation of the revised project noise reduction measures described in revised EA section 2.2.1. These measures were proposed for the San Francisco Downtown Ferry Terminal Project, and implemented successfully during construction of the San Francisco Muni Project. Implementation of the noise reduction measures identified in the EA is expected to ensure that noise impacts remain less than substantial. Nevertheless, BART will continue to consult with the Port and other affected entities to refine the implementation of these measures, in order to further minimize any unanticipated impacts.

I-11. The EA section 3.3.2.2 describes potential construction impacts on the Ferry Building resulting from potential pile driving activity within 200 feet. Because of the recent seismic retrofitting and stabilization done to the Ferry Building, pile driving is not expected to have an adverse effect. The Agriculture Building is located approximately 400 feet away from the six potential pile driving locations located adjacent and north of the existing BART Transition structure. The EA determined that potential pile driving vibration beyond 200 feet is not expected to have any measurable effect on buildings constructed prior to modern reinforcement techniques. Therefore, project construction would have no effect on the historical integrity of the Agriculture Building. Sinbad's and the Pier 1 Deli are similarly located beyond 200 feet from potential pile driving activities. However, in the event of unforeseen vibration impacts, BART has agreed to conduct pre- and post-construction surveys to document structural conditions of the Ferry Building and the Agricultural Building at project completion (see revised EA section 2.2.2). If applicable, work would be performed in accordance with the referenced Secretary of Interior Standards for Historic Rehabilitation.

I-12. Please see response to Comment F-7. BART has refined the conceptual design of the temporary Golden Gate Ferry Terminal at future Gate C (see Figure 8). Relocation of the Golden Gate ferry terminal, as well as mitigation to ensure construction and supply barges do not interfere with terminal access, will ensure that operations of all ferry berths will be maintained at a comparable level of service throughout project construction (see revised EA section 2.2.3). The proposed mitigation measures have been designed to avoid any potential "cross-over" traffic related to ferry arrivals and departures.

I-13. Please see response to Comment F-7 and Figure 8. The full text and analysis of revised mitigation measures are described in revised EA section 2.2.3. Details of the construction phasing plan are identified in revised EA section 2.1.2, and are shown on Figures 2 through 7. Impacts associated with implementation of the temporary Golden Gate Ferry Terminal are assessed in section 2.2.8, and mitigation identified, as appropriate.

I-14. Please see response to Comment F-7. To ensure adequate access is provided for Golden Gate District's ferry operations and a comparable level of service is maintained throughout construction, Golden Gate District's existing vessel infrastructure and support services will be relocated to a temporary, dual-berth ferry terminal at future

Gate C (see Figure 8). The full text and analysis of revised mitigation measures are described in revised EA section 2.2.3.

I-15. Revised EA section 2.1.2, and Figures 2 through 7, identify the proposed construction phases at the Platform, which include the temporary removal and replacement of the Platform structure itself. Design and reconstruction of the Port facilities altered during construction will meet applicable code requirements.

The Ferry Terminal at the San Francisco Ferry Plaza Platform proposed for removal and temporary relocation will also be rebuilt based on further consultation between BART, Caltrans, FHWA, the Golden Gate District, and other responsible agencies (e.g., Port of San Francisco, BCDC), and will meet applicable code requirements. Please see Section 2.2.3 for additional information.

I-16. Please see response to Comment F-7. BART will coordinate with the Port's Homeland Security Director and the City of San Francisco Office of Emergency Services to develop any alternative response plans for emergencies that could arise during project construction.

I-17. EA section 3.8.2.2 assesses the impacts of San Francisco Transition Structure construction activity on visual resources. In addition, revised EA section 2.2.8 assesses the visual impacts associated with implementation of the proposed temporary terminal at future Gate C. Construction effects would be temporary, and the Platform and vicinity would be restored to its in-kind condition following construction. Therefore, project construction, including removal of a portion of the platform, would not affect the broader scenic setting and impacts on visual quality would be negligible. In addition, revised EA section 2.2.8 includes mitigation measures intended to direct visitors to other nearby, publicly-accessible viewing locations, thereby linking important and underutilized scenic resources located along the waterfront. Implementation of the proposed mitigation measures is expected to ensure that impacts from loss of public access viewing space will remain less than substantial. Nevertheless, BART will continue to consult with the Port and other affected entities to refine the implementation of these measures, in order to further minimize any unanticipated impacts.

I-18. The EA (page 3.10-5, lines 15-25) identifies project measures that will be implemented to minimize off-site construction impacts related to air quality emissions, and references the BART Seismic Retrofit Project Construction Standards Manual for additional details. As described in revised EA section 2.2.6, BART will implement best management practices for dust control, including the applicable BAAQMD "Basic," "Enhanced," and "Optional" control measures to reduce fugitive PM_{10} emissions (e.g., dust) from proposed construction activities.

I-19. Please see response to Comments C-6 and F-7. BART will continue to work with the Port and tenants to address their concerns to ensure that disruption of their businesses is minimized, mitigation measures are implemented (see revised EA section 2.2.7), and public access to affected businesses is maintained throughout project construction. BART's project management and community outreach team will be actively involved throughout the construction period to quickly respond to and resolve any issues that

may arise. However, although social impacts must be considered for purposes of NEPA, including impacts on access to services that Port tenants provide to the public, the tenants' potential lost business income is not an environmental impact.

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"Ernest Sanchez"
<Epsanche@ci.alameda.ca.us>

To <jlayton@bart.gov>
cc

10/13/2005 03:34 PM

Subject Re: BART Seismic Retrofit Project Environmental Assessment

** High Priority **

I would like to comment on the five mitigation measures listed in Table 3.4-7 of the Environmental Assessment (EA).
Mitigation Measures 1 & 3
a) I ask that any reference to "representatives from Alameda-Harbor Bay Ferry" be deleted from the text as the City of Alameda is the operator of the Alameda Harbor Bay Ferry (AHBF) and does not agree with the opinion reported. J-1
b) The City operates two ferry services: the AHBF and the Alameda/Oakland Ferry Service (AOFS). Both services are funded in part though MTC Regional Measure 1-5% Bridge Toll program (RM1) grants. To maintain grant eligibility, each ferry must maintain at least a 40% Farebox Recovery Ratio (FRR). This year the AHBF almost lost grant eligibility due to a low FRR. As that system is struggling to reach (and maintain) a 40% FRR any disruption (and especially an extended disruption) could have significant consequences for the service. Having to adjust the service schedule by 15 to 20 minutes would very likely significantly suppress ridership. J-2
c) The likelihood that one of the boats will breakdown while at the pier is not address by this mitigation measure. J-3
I believe that this mitigation measure should be considered as a last resort only.

Mitigation Measure 2
a) I ask that any reference to "representatives from Alameda-Harbor Bay Ferry" be deleted from the text as the City of Alameda is the operator of the Alameda Harbor Bay Ferry (AHBF) and does not agree with the opinion reported in the text. J-4
b) Relocating the terminals one to three miles from their current locations would have a very significant negative effect on our ridership. J-5
I do not believe this to be a viable option. I ask that this measure be eliminated from the EA.

Mitigation Measure 4
a) It is not clear how this measure would mitigate the impact of the work on the east bay ferries. The measure suggests that if a new float were constructed at Pier ½, our ferries could be repaired there. But the main impact of the work on our ridership will result from delays due to 1) multiple vessels using the southern berth of the South Terminal and 2) breakdown of a vessel at the berth. J-6
I believe that this measure could be of some very limited benefit but it does not address the principal concern.

Mitigation Measure 5
This measure would be acceptable if it were to result in only a 2 week closure of the northern berth. J-7

Ernest Sanchez, City of Alameda, (on behalf of the Alameda Harbor Bay Ferry and Alameda/Oakland Ferry Service), October 13, 2005

J-1. EA mitigation measures have been revised to eliminate all references to "representatives from the Alameda-Harbor Bay Ferry." Please see revised EA section 2.2.3 for additional details.

J-2. Please see response to Comment F-7. Vessel transportation mitigation measures have been revised to ensure all ferry terminal operations are maintained during proposed construction activities at the Ferry Plaza Platform to avoid temporary impacts associated with loss of ridership (see revised EA section 2.2.3). Specifically, to avoid impacts at the South Terminal, BART proposes to tie-off construction supply barges at the northern and eastern ends of the Platform and/or to provide the City of Alameda 48-hours advanced notice if a construction supply barge needs to be moved during ferry hours of operation. In addition, in the event of unscheduled maintenance or an emergency situation, access to a SBC Park or Pier 27 ferry berth is proposed. As a result, requiring adjustment of ferry schedules is no longer anticipated.

J-3. Please see response to Comment J-2. In the event of unscheduled maintenance or emergency situation, such as a boat breaking down at berth, access to another ferry berth at SBC Park or Pier 27 will be provided to ensure continual ferry operations throughout the duration of construction (see revised EA section 2.2.3 for details). With implementation of the revised mitigation measures, requiring adjustment of schedules (EA Table 3.4-7 measures 1 and 3) is no longer anticipated.

J-4. Please see response to Comment J-1.

J-5. Please see response to Comments H-5 and H-6. The ferry berths at SBC Park and/or Pier 27 will only be used in the event of unscheduled maintenance or emergency situations, and were not intended for commuter use.

J-6. As described in revised EA section 2.2.3, mitigation measures to minimize or avoid vessel transportation impacts are provided for all ferry operators at the Ferry Building. The referenced mitigation measure is specific to Golden Gate Ferry Terminal operations, and is proposed to offset impacts associated with precluding access to existing Golden Gate District infrastructure at the Ferry Platform (see response to Comment F-7). To avoid impacts to ferry operations at the South Terminal, mitigation is proposed requiring construction supply barges to tie-off to the northern and eastern ends of the Platform, or to provide 48-hours advanced notice in the case a barge needs to be moved during ferry hours of operation. In addition, in the event of unscheduled ferry maintenance, or emergency situations that may affect any of the six berths at the Ferry Building, use of a SBC Park or Pier 27 ferry berth would made be available (see revised EA section 2.2.2). Therefore, impacts associated with loss of ridership resulting from delays is not anticipated.

J-7. As discussed in revised EA section 2.2.3 and depicted on Figures 2 through 7, construction supply barges will be tied off to the northern and eastern ends of the

Platform to avoid interfering with ferry operations at the South Terminal throughout the duration of construction. In the event that a barge would need to be moved during ferry hours of operation, BART has agreed to provide 48-hours advanced notice to the City of Alameda. Therefore, vessel transportation impacts resulting from precluding access to the northern berth at the South Terminal would be avoided.

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September 27, 2005

Janie Layton
BART Environmental Compliance
PO Box 12688, Mail Stop LKS-18
Oakland, CA 94606-2688

Re: Environmental Assessment

Dear Mrs. Layton,

On behalf of the Ferry Plaza Limited Partnership ("FPLP") and its subtenant the World Trade Club of San Francisco ("WTC"), I would like to express our concerns about the Environmental Assessment, dated August, 2005. As you may be aware, FPLP has a long term lease on the building designated as the San Francisco Transition Structure in the report, consequently any work that is performed on the Ferry Plaza will have a detrimental impact on our subtenant's business. K-1

Although we have been in contact with BART representatives on this matter for several months now, I only learned of the existence of the environmental assessment and was only provided a copy by the Port of San Francisco yesterday. Due to this short time frame to review the document, my comments will be general in nature. K-2

Section 3.0 Existing Environment, Impacts, and Mitigation, lists ten different studies that were done to prepare the environmental assessment. Of particular concern for FPLP and the WTC is the noise and vibration that drilling the piles will make. We have never been given a copy of the Noise Technical Study and due to the uncertainty of the method of construction, the number of piles to be drilled and the length of construction, it is impossible for us to know exactly what to expect. I just want to remind you that the WTC derives the majority of its business from its meeting rooms and banquet facilities. Any constant, loud noise will harm the WTC's business. For instance, during construction of the fence at the bottom of the structure, one person using a small hammer caused enough noise for the company renting the room for a meeting to complain to the manager that they could not hold their meeting. While I see mitigation measures for locations 3-19 and 20-37, I did not see anything mentioned for the Transition Structure other than the last four lines on page 3.2-9. We need more information as to what exactly will be done on the plaza, what mitigation measures will be in place and how long will the construction take. K-3

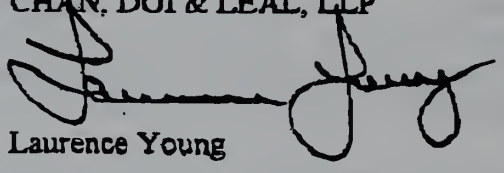
K-4 There is also no mention of the impact on transportation on the plaza. While the plaza is not a transit corridor, we do need access to the club for its members and guests and for commercial deliveries. The plaza is the only means by which anyone can reach the building. We just want to be assured that there will be a clean and safe way for the public to do so.

K-5 Finally, under Social Impacts, page 3.11-7, lines 22-28, it is disingenuous for the report to say that "impacts related to use of this facility are considered negligible." To the WTC and the tenants of the Ferry Building, the impact of the construction will be huge. Business at the club could potentially dry up if proper measures aren't taken to allow convenient access to the building that is safe and inviting to the members and their guests and to mitigate the noise, vibration and pollution caused by the drilling.

K-6 We fully understand and appreciate that this is a major construction project and that details in this report may not occur since the project is still being finalized, however, we have to be concerned with anything that will impact the WTC' use and enjoyment of the Transition Structure. It is an ongoing business which sits directly on the ferry plaza and since the construction will be on the plaza it will be directly impacted by the sight, sound, vibration, and pollution of the construction and its access to the street will be restricted.

Sincerely,

CHAN, DOI & LEAL, LLP



Laurence Young

Laurence Young, Chan, Doi & Leal, LLP, on behalf of the Ferry Plaza Limited Partnership and World Trade Club, September 27, 2005

K-1. Based on further design review, several of the proposed retrofit techniques analyzed in the EA have been eliminated from further consideration in order to avoid a detrimental impact on businesses and patrons at and surrounding the Platform, including the World Trade Club (see revised EA sections 2.1.1 through 2.1.3). Accordingly, impacts associated with their implementation are no longer applicable. Further design review also indicates that pile driving, dredging, and fill will be substantially reduced compared to that analyzed in the EA, as would be the resulting noise, water quality, and public access impacts (see revised EA sections 2.2.1 through 2.2.8 for additional details). Responses to specific concerns are addressed below.

K-2. A copy of the EA was received by Tim Odenweller at the World Trade Club, on August 28, 2005. In addition, the Public Notice of Availability was sent to the following representatives at the World Trade Club: Christian Thon, Damir Priskich, Tad Lacey, and Gregory Putnam. This mailing meets the Federal Highway Authority's (Lead Agency) requirements for public review pursuant to NEPA, and provided the World Trade Club a 30-day period to review and comment on the environmental document.

K-3. Per NEPA CEQ Guidance, technical studies are not required to be circulated to the public with the EA; however, BART sent a copy of the Noise Technical Study on December 12, 2005 to Chan, Doi & Leal, LLP. In addition, all technical studies, including the Noise Technical Study, were made available for review during the 30-day public comment period at six locations: the BART, Caltrans, and FHWA offices, and three local libraries (San Francisco Main, Rockridge Branch, and Oakland Main). The EA is required to contain sufficient technical information from these reports to substantiate the conclusions drawn.

Further design review indicates that an estimated six of the total 116 steel pipe piles associated with Pile Array installation at the San Francisco Transition Structure may require use of an impact hammer. The remainder of these piles would be installed by rotating or oscillating techniques, which are not expected to produce noise levels or vibration in excess of approved standards. In addition, project noise construction measures will be implemented throughout the duration of construction to minimize or reduce noise levels, as described in revised EA section 2.2.1, including limiting pile driving hours to avoid the lunch and dinner hours. See also response to Comments F-35 and F-36.

For further information on the proposed construction phases at the Platform, see revised EA section 2.1.2 and Figures 2 through 7. The anticipated construction schedule for the transition structure is described in revised EA section 2.1.4; retrofits are expected to take 2 to 3 years.

K-4. To facilitate access to and use of the Platform during retrofits at the San Francisco Transition Structure, construction would occur in up to six phases, ensuring that portions of the Platform remain publicly accessible by both pedestrians and transit,

including entrance(s) to the World Trade Club throughout the duration of construction activities (see Figures 2 through 7). BART will continue to consult with the World Trade Club to ensure that access to the existing entrance(s) on the Platform remain operational during construction, as it is expected that patron access to the club and commercial deliveries would continue through these entrances.

K-5. Please see response to Comment C-5. Measures will be implemented to ensure that noise, vibration, pollution (e.g., dust), and public access impacts are minimized during construction as described in revised EA sections 2.2.1 through 2.2.8. BART will specify these measures, as well as other BART standard construction measures, within all construction contracts to minimize environmental impacts. See also response to Comments F-34 through F-36. However, although social impacts must be considered for purposes of NEPA, including impacts on access to services that businesses provide to the public, potential lost business income is not an environmental impact.

K-6. Comment noted. BART, in cooperation with Caltrans and FHWA, will continue to consult closely with the World Trade Club to ensure construction impacts are reduced or minimized through proper implementation of mitigation measures proposed in the EA.

Jane_Connors@equityoffice.com

09/28/2005 04:57 PM

To Jlayton@Bart.Gov
cc MMcarth@Bart.Gov, Mary_Hunter@equityoffice.com
Subject BART Environmental Accessment/Ferry Building Concerns

Janie -

I am writing this letter in response to the Environmental Assessment of the BART Seismic Upgrade - and it's potential impacts on the surrounding area of the plaza behind the Ferry Building. While we understand the importance of this upgrade it is imperative that we protect the interest of our tenants who have invested in businesses at the Ferry Building. We would hope these conditions will be considered: L-1

Our primary concern is that BART work with all Ferry Building tenants to access noise level concerns. L-2

That various work shifts on the back plaza are scheduled in consideration of work and retail needs of the Ferry Building tenants, because of noise levels. L-3

All hazardous materials are clearly labeled, guarded and maintain a far distance from the Marketplace and Farmers Market. L-4

That BART contacts Ferry Building management within 72 hours of any use of fumes that may effect the health and welfare of Ferry Building tenants. L-5

That water quality in the Bay is closely monitored. L-6

The area under the Ferry Building is closely monitored for erosion during the seismic upgrade, and that land be returned to a condition as least as good as that which existed before the seismic upgrade. L-7

That no permanent adverse environmental impacts interfere with the use of the back plaza after the seismic retrofit is completed. L-8

Jane Connors
Ferry Building
Communications Specialist
Phone 415.591.0950 ext.116
Fax 415.591.0951

Jane Connors, San Francisco Ferry Building, Equity Office, September 28, 2005

L-1. Comment noted. Responses to specific comments are provided below.

L-2. See response to Comments F-34 through F-36. BART, in cooperation with Caltrans and FHWA, will continue to consult closely with the Port and Ferry Building tenants to ensure noise levels are maintained within acceptable limits throughout the extent of construction activities at the Ferry Terminal area. See also revised EA section 2.2.1 for details regarding the proposed noise reduction measures.

L-3. Please see response to Comment L-2.

L-4. Revised EA Section 2.2.4 includes a mitigation measure requiring the proper handling, disposal, and use of hazardous materials in the vicinity of active pedestrian and public use areas at the San Francisco Ferry Building.

L-5. Revised EA Section 2.2.4 includes a mitigation measure requiring BART to contact the San Francisco Ferry Building Management within 72 hours prior to the start of construction activities that could release fumes that may affect Ferry Building tenants or patrons.

L-6. BART will be required to obtain regulatory permits consistent with local, state, and federal requirements, including those from the San Francisco Regional Water Quality Control Board, and to adhere to conditions imposed as part of these permits regarding water quality and pollution control. See also EA section 3.1.2.2 for a discussion of project actions that will be implemented to avoid water impacts, such as use of temporary construction sheet pile walls around construction areas for confinement of turbidity and construction debris.

L-7. As described in EA section 3.5.2.2, proposed retrofits would have negligible impacts on geology and seismicity, including at the San Francisco Transition Structure. Completion of these upgrades will actually strengthen the land materials surrounding the transition structure and Tube, and greatly reduce the potential for liquefaction or other seismically-induced impacts or erosion. During dredging activities, BART will use temporary construction sheet pile walls, which will also act to reduce the potential for slope failure. Removal of portions of the Ferry Plaza Platform, including up to 80 support piles, will be replaced and redeveloped to pre-construction conditions.

L-8. Environmental impacts associated with the proposed project would be temporary (i.e., only occur during the duration of construction activities); the project would not result in any permanent, long-term adverse impacts. In addition, the Platform will be restored to its pre-project conditions following project completion. See revised EA sections 2.2.1 through 2.2.8 for proposed mitigation measures that will be implemented to ensure impacts to the Platform and surrounding area are minimized during project construction.

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4.0 REFERENCES

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5.0 ACRONYMS

BART	San Francisco Bay Area Rapid Transit District
BCDC	San Francisco Bay Conservation and Development Commission
Caltrans	State of California Department of Transportation
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
CHP	California Highway Patrol
CUESA	Center for Urban Education about Sustainable Agriculture
CWA	Clean Water Act
cy	cubic yards
CZMA	Coastal Zone Management Act
dBA	A-weighted decibel
EA	Environmental Assessment
EFH	Essential Fish Habitat
ESA	federal Endangered Species Act
FHWA	U.S. Department of Transportation Federal Highway Administration
FONSI	Finding of No Significant Impact
FPLP	Ferry Plaza Limited Partnership
LOS	level of service
MHTL	mean high tide line
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
sf	square feet
SWPPP	Stormwater Pollution Prevention Plan
WTA	Water Transit Authority

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